



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
53 1181S	GRIFFITH PARK OFF-RAMP OC	07-LA-005-24.61-LA	5. Bridge not eligible for NRHP	1957	1992
53 1183	GRIFFITH PARK POC	07-LA-005-23.97-LA	5. Bridge not eligible for NRHP	1957	
53 1184	SOUTH LOS ANGELES UP	07-LA-110-13.77-LA	5. Bridge not eligible for NRHP	1986	
53 1185	SAN GABRIEL RIVER	07-LA-405-.03-LBCH	5. Bridge not eligible for NRHP	1964	
53 1186	ATHERTON STREET UC	07-LA-405-.27-LBCH	5. Bridge not eligible for NRHP	1964	1992
53 1187	STUDEBAKER ROAD UC	07-LA-405-.45-LBCH	5. Bridge not eligible for NRHP	1963	1992
53 1188	LOS CERRITOS CHANNEL	07-LA-405-.78-LBCH	5. Bridge not eligible for NRHP	1963	1992
53 1189	STEARNS STREET UC	07-LA-405-.96-LBCH	5. Bridge not eligible for NRHP	1963	1996
53 1190	PALO VERDE AVENUE UC	07-LA-405-1.11-LBCH	5. Bridge not eligible for NRHP	1963	
53 1191	WOODRUFF AVENUE UC	07-LA-405-1.64-LBCH	5. Bridge not eligible for NRHP	1963	
53 1192	ALBURY AVENUE PUC	07-LA-405-1.86-LBCH	5. Bridge not eligible for NRHP	1963	
53 1193S	LOS COYOTES DIAGONAL UC	07-LA-405-2.16-LBCH	5. Bridge not eligible for NRHP	1963	
53 1194	BELLFLOWER UC	07-LA-405-2.18-LBCH	5. Bridge not eligible for NRHP	1963	
53 1194S	BELLFLOWER UC	07-LA-405-2.25-LBCH	5. Bridge not eligible for NRHP	1963	
53 1195	CLARK AVENUE UC	07-LA-405-2.76-LBCH	5. Bridge not eligible for NRHP	1963	
53 1196	ROUTE 405/19 SEPARATION	07-LA-405-3.3-LBCH	5. Bridge not eligible for NRHP	1964	
53 1196G	ROUTE 405/19 SEPARATION	07-LA-405-3.3-LBCH	5. Bridge not eligible for NRHP	1960	
53 1197	REDONDO AVENUE UC	07-LA-405-3.82-LBCH	5. Bridge not eligible for NRHP	1964	1995
53 1198	TEMPLE AVENUE OC	07-LA-405-4.33-LBCH	5. Bridge not eligible for NRHP	1964	
53 1199	SPRING STREET OC	07-LA-405-4.53-LBCH	5. Bridge not eligible for NRHP	1962	
53 1200	CHERRY AVENUE OC	07-LA-405-4.88-LBCH	5. Bridge not eligible for NRHP	1964	
53 1201	WALNUT AVENUE OC	07-LA-405-5.14-LBCH	5. Bridge not eligible for NRHP	1964	
53 1202	ORANGE AVENUE OC	07-LA-405-5.39-SIGH	5. Bridge not eligible for NRHP	1964	
53 1203	CALIFORNIA AVENUE OC	07-LA-405-5.64-SIGH	5. Bridge not eligible for NRHP	1964	
53 1204	ATLANTIC AVENUE OC	07-LA-405-6.08-LBCH	5. Bridge not eligible for NRHP	1963	
53 1205	LONG BEACH BLVD UC	07-LA-405-6.34-LBCH	5. Bridge not eligible for NRHP	1963	1996
53 1206	WARDLOW ROAD UC	07-LA-405-6.5-LBCH	5. Bridge not eligible for NRHP	1963	1996
53 1207	PACIFIC AVENUE UC	07-LA-405-6.7-LBCH	5. Bridge not eligible for NRHP	1963	1996
53 1208	BIXBY OVERHEAD	07-LA-405-6.98-LBCH	5. Bridge not eligible for NRHP	1963	
53 1209	LOS ANGELES RIVER	07-LA-405-7.4-LBCH	5. Bridge not eligible for NRHP	1963	
53 1209G	N405-N710 CONNECTOR	07-LA-405-7.4-LBCH	5. Bridge not eligible for NRHP	1963	
53 1209H	N710-S405 CONNECTOR	07-LA-710-9.3-LBCH	5. Bridge not eligible for NRHP	1963	
53 1210	ROUTE 405/710 SEPARATION	07-LA-405-7.57-LBCH	5. Bridge not eligible for NRHP	1961	
53 1210K	ROUTE 405/710 SEPARATION	07-LA-405-7.57-LBCH	5. Bridge not eligible for NRHP	1961	
53 1212	SANTA FE AVENUE UC	07-LA-405-8.06-LBCH	5. Bridge not eligible for NRHP	1961	1998
53 1212F	S405-N710/SANTA FE CONNECTOR	07-LA-405-8.06-LBCH	5. Bridge not eligible for NRHP	1961	
53 1213	DOMINGUEZ CHANNEL	07-LA-110-9.13-LA	5. Bridge not eligible for NRHP	1960	1985
53 1215	SAN FERNANDO BLVD SBD UC	07-LA-005-30.47-BRB	5. Bridge not eligible for NRHP	1960	
53 1216	ROSCOE BLVD OC	07-LA-005-33.28-LA	5. Bridge not eligible for NRHP	1960	
53 1217S	TUXFORD RAMP SEPARATION	07-LA-005-34.72-LA	5. Bridge not eligible for NRHP	1961	
53 1218S	TUXFORD OFF-RAMP OC	07-LA-005-34.82-LA	5. Bridge not eligible for NRHP	1961	
53 1219	LAUREL CANYON BLVD OC	07-LA-005-35.94-LA	5. Bridge not eligible for NRHP	1963	
53 1220	CHATSWORTH DRIVE UC	07-LA-005-39.92-LA	5. Bridge not eligible for NRHP	1963	



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
53 1692	TONOPAH STREET PUC	07-LA-005-36.41-LA	5. Bridge not eligible for NRHP	1963	
53 1693	FINDLAY AVENUE UC	07-LA-060-R5.16-MTBL	5. Bridge not eligible for NRHP	1967	2004
53 1694	WILCOX AVENUE UC	07-LA-060-R5.89-MTBL	5. Bridge not eligible for NRHP	1967	
53 1695	GARFIELD AVENUE UC	07-LA-060-R5.6-MTBL	5. Bridge not eligible for NRHP	1967	
53 1696	GERHART AVENUE UC	07-LA-060-R4.8	5. Bridge not eligible for NRHP	1967	2004
53 1697	ATLANTIC BLVD UC	07-LA-060-R4.43-MONP	5. Bridge not eligible for NRHP	1967	
53 1698	SAN GABRIEL RIVER	07-LA-091-R16.62-BFL	5. Bridge not eligible for NRHP	1968	
53 1699	POMONA BLVD UC	07-LA-060-R4.68-MONP	5. Bridge not eligible for NRHP	1967	2004
53 1700S	VICTORY BLVD RAMP SEPARATION	07-LA-170-R17.13-LA	5. Bridge not eligible for NRHP	1966	
53 1701K	VICTORY BLVD RAMP SEPARATION	07-LA-170-R17.33-LA	5. Bridge not eligible for NRHP	1966	
53 1702	NW CONNECTOR UP (S710-W10)	07-LA-710-R26.59-MONP	5. Bridge not eligible for NRHP	1974	
53 1703G	E91-N605 CONNECTOR OC	07-LA-091-R16.97-CRTS	5. Bridge not eligible for NRHP	1966	
53 1704	ROUTE 91/605 SEPARATION	07-LA-091-R16.9-CRTS	5. Bridge not eligible for NRHP	1966	1994
53 1705F	W91-S605 CONNECTOR OC	07-LA-091-R16.93-CRTS	5. Bridge not eligible for NRHP	1966	
53 1706	STUDEBAKER ROAD UC	07-LA-091-R17.08-CRTS	5. Bridge not eligible for NRHP	1968	
53 1707F	W91-N&S605 CONNECTOR OC	07-LA-091-R17.09-CRTS	5. Bridge not eligible for NRHP	1968	
53 1708	HELLMAN AVENUE OC	07-LA-710-R27.11-LA	5. Bridge not eligible for NRHP	1965	
53 1709	MARKLAND DRIVE UC	07-LA-060-R6.3-MTBL	5. Bridge not eligible for NRHP	1967	
53 1709K	MARKLAND DRIVE UC	07-LA-060-R6.3-MTBL	5. Bridge not eligible for NRHP	1967	
53 1710	195TH STREET OC	07-LA-605-R3.4-CRTS	5. Bridge not eligible for NRHP	1964	
53 1711	183RD STREET UC	07-LA-605-R4.26-CRTS	5. Bridge not eligible for NRHP	1966	
53 1712K	HUMPHREYS AVENUE RAMP SEPARATION	07-LA-710-24.32-LA	5. Bridge not eligible for NRHP	1967	
53 1714G	N710-E&W60 CONNECTOR OC	07-LA-710-24.61-LA	5. Bridge not eligible for NRHP	1967	
53 1715H	E60 & W60 - S710 CONNECTOR	07-LA-060-R3.28	5. Bridge not eligible for NRHP	1967	
53 1716F	S710-E&W60 CONNECTOR OC	07-LA-710-24.64-LA	5. Bridge not eligible for NRHP	1967	
53 1717H	E60 & W60 - N710 CONNECTOR	07-LA-060-R3.26	5. Bridge not eligible for NRHP	1967	
53 1718	BELLFLOWER BLVD UC	07-LA-091-R15.61-BFL	5. Bridge not eligible for NRHP	1968	
53 1719	BIXBY AVENUE UC	07-LA-091-R15.87-BFL	5. Bridge not eligible for NRHP	1968	
53 1720	WOODRUFF AVENUE UC	07-LA-091-R16.07-BFL	5. Bridge not eligible for NRHP	1968	
53 1721	DAIRY VALLEY OH	07-LA-605-R4.71-CRTS	5. Bridge not eligible for NRHP	1966	
53 1722	CARSON STREET UC	07-LA-605-R1.74-LKW	5. Bridge not eligible for NRHP	1966	2001
<u>53 1723</u>	<u>SPRING STREET OC</u>	<u>07-LA-605-R.29-LBCH</u>	<u>5. Bridge not eligible for NRHP</u>	<u>1965</u>	
53 1724	CENTRALIA ROAD OC	07-LA-605-R2.31-LKW	5. Bridge not eligible for NRHP	1964	
53 1725	DEL AMO BLVD OC	07-LA-605-R2.87-CRTS	5. Bridge not eligible for NRHP	1966	
53 1726	REYES ADOBE OC	07-LA-101-36.18-AGRH	5. Bridge not eligible for NRHP	1965	
53 1727F	CESAR CHAVEZ AVENUE UC (S710-60)	07-LA-710-24.97-LA	5. Bridge not eligible for NRHP	1967	
53 1728	BELVEDERE POC	07-LA-060-R3.88	5. Bridge not eligible for NRHP	1967	
53 1729	WOODS AVENUE UC	07-LA-060-R4.08-MONP	5. Bridge not eligible for NRHP	1967	2004
53 1730	LOST HILLS OC	07-LA-101-31.91	5. Bridge not eligible for NRHP	1965	
53 1731	LIBERTY CANYON ROAD UC	07-LA-101-32.78	5. Bridge not eligible for NRHP	1973	
53 1732	SOUTH STREET OC	07-LA-605-R3.75-CRTS	5. Bridge not eligible for NRHP	1966	
53 1733	STUDEBAKER ROAD UC	07-LA-605-R4.39-CRTS	5. Bridge not eligible for NRHP	1966	
53 1734	MEDNIK AVENUE OC	07-LA-060-R3.74	5. Bridge not eligible for NRHP	1967	



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
53 1735	ARTESIA BLVD UC	07-LA-605-R4.77-CRTS	5. Bridge not eligible for NRHP	1966	
53 1735G	N605-E91 CONNECTOR OC	07-LA-605-R4.78-CRTS	5. Bridge not eligible for NRHP	1966	
53 1736	RIO HONDO	07-LA-060-8.89	5. Bridge not eligible for NRHP	1966	
53 1737H	<u>SAN GABRIEL RIVER (S605-N405)</u>	<u>07-LA-405-.02-LBCH</u>	<u>5. Bridge not eligible for NRHP</u>	<u>1966</u>	
53 1738	AVENUE "Q" UC	07-LA-014-R60.19-PMDL	5. Bridge not eligible for NRHP	1966	2006
53 1739M	ADOREE STREET PUC	07-LA-605-R7.6-NRW	5. Bridge not eligible for NRHP	1966	
53 1740M	EVEREST STREET PUC	07-LA-605-R8.03-NRW	5. Bridge not eligible for NRHP	1966	
53 1741	GALAVAN STORM DRAIN	07-LA-110-5.9-LA	5. Bridge not eligible for NRHP	1962	
53 1742	GRIDLEY ROAD POC	07-LA-605-R2.59-LKW	5. Bridge not eligible for NRHP	1966	
53 1744	CONCORD STREET UC	07-LA-134-R6.18-GNDL	5. Bridge not eligible for NRHP	1968	
53 1745	KENILWORTH AVENUE PUC	07-LA-134-R6.18-GNDL	5. Bridge not eligible for NRHP	1967	
53 1746	PACIFIC AVENUE UC	07-LA-134-R6.57-GNDL	5. Bridge not eligible for NRHP	1967	
53 1747	COLUMBUS AVENUE POC	07-LA-134-R6.74-GNDL	5. Bridge not eligible for NRHP	1968	
53 1748	CENTRAL AVENUE OC	07-LA-134-R6.96-GNDL	5. Bridge not eligible for NRHP	1968	1996
53 1749	BRAND BLVD OC	07-LA-134-R7.13-GNDL	5. Bridge not eligible for NRHP	1968	
53 1750	LOUISE STREET OC	07-LA-134-R7.26-GNDL	5. Bridge not eligible for NRHP	1968	
53 1751	JACKSON STREET OC	07-LA-134-R7.4-GNDL	5. Bridge not eligible for NRHP	1965	
53 1752	GENEVA STREET OC	07-LA-134-R7.6-GNDL	5. Bridge not eligible for NRHP	1968	
53 1755	CLAYTON OH	07-LA-060-12.18-IDY	5. Bridge not eligible for NRHP	1967	1981
53 1756	COURSON ROAD UC	07-LA-014-R56.32	5. Bridge not eligible for NRHP	1966	
53 1757	ARDMORE AVENUE UC	07-LA-091-R15.39-BFL	5. Bridge not eligible for NRHP	1968	
53 1759	CLARK AVENUE UC	07-LA-091-R15.1-BFL	5. Bridge not eligible for NRHP	1968	
53 1760	ROUTE 91/19 SEPARATION	07-LA-091-R14.6-BFL	5. Bridge not eligible for NRHP	1968	
53 1760F	S19-E91 CONNECTOR OC	07-LA-019-6.03-BFL	5. Bridge not eligible for NRHP	1968	
53 1760G	N19-W91 CONNECTOR OC	07-LA-019-6.07-BFL	5. Bridge not eligible for NRHP	1968	
53 1761	DOWNEY AVENUE UC	07-LA-091-R14.1-LBCH	5. Bridge not eligible for NRHP	1970	
53 1763	ARLETA & SHELDON UC	07-LA-170-R20.1-LA	5. Bridge not eligible for NRHP	1968	
53 1764	SAN GABRIEL BLVD OC	07-LA-060-R8.55-RSMD	5. Bridge not eligible for NRHP	1967	1991
53 1765	SANTA ANITA AVENUE OC	07-LA-060-10.23-SEMT	5. Bridge not eligible for NRHP	1966	
53 1766	PECK ROAD UC	07-LA-060-11-SEMT	5. Bridge not eligible for NRHP	1966	
53 1767	SAN GABRIEL RIVER	07-LA-060-11.3-SEMT	5. Bridge not eligible for NRHP	1967	
53 1768	WORKMAN MILL ROAD UC	07-LA-060-11.98	5. Bridge not eligible for NRHP	1967	1981
53 1770	ROUTE 164/60 SEPARATION	07-LA-164-3.32	5. Bridge not eligible for NRHP	1966	
53 1771	SEVENTH AVENUE UC	07-LA-060-14.26	5. Bridge not eligible for NRHP	1967	
53 1772	TURNBULL CANYON ROAD UC	07-LA-060-15.09	5. Bridge not eligible for NRHP	1967	
53 1773	STONER CREEK ROAD UC	07-LA-060-19.1-IDY	5. Bridge not eligible for NRHP	1966	
53 1774	GREENWOOD AVENUE OC	07-LA-060-R6.86-MONP	5. Bridge not eligible for NRHP	1967	
53 1776L	FRAZIER MOUNTAIN UC	07-LA-005-R88.56	5. Bridge not eligible for NRHP	1966	
53 1776R	FRAZIER MOUNTAIN UC	07-LA-005-R88.56	5. Bridge not eligible for NRHP	1966	
53 1778L	GORMAN UC	07-LA-005-R85.8	5. Bridge not eligible for NRHP	1966	
53 1778R	GORMAN UC	07-LA-005-R85.8	5. Bridge not eligible for NRHP	1966	
53 1779	TEJON PASS OC	07-LA-005-R87.37	5. Bridge not eligible for NRHP	1966	
53 1782S	HOLLY DRIVE UC RAMP	07-LA-101-7.4-LA	5. Bridge not eligible for NRHP	1965	1977



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
53 1825	SAN JOSE WASH (WEST)	07-LA-010-44.84-POM	5. Bridge not eligible for NRHP	1963	
53 1829	SAN JOSE CREEK CHANNEL	07-LA-605-R15.7-PRV	5. Bridge not eligible for NRHP	1964	
53 1830	ROSE HILLS CHANNEL	07-LA-605-R15.37-IDY	5. Bridge not eligible for NRHP	1964	
53 1831	IVERSON ROAD UC	07-LA-118-R1.09	5. Bridge not eligible for NRHP	1968	1994
53 1832	ROUTE 118/27 SEPARATION	07-LA-118-R1.78-LA	5. Bridge not eligible for NRHP	1968	1996
53 1833	CALIFORNIA AQUEDUCT	07-LA-014-R57.14	5. Bridge not eligible for NRHP	1966	2006
53 1834L	CENTURY BLVD OC	07-LA-001-26.91-LA	5. Bridge not eligible for NRHP	1966	
53 1834R	CENTURY BLVD OC	07-LA-001-26.9-LA	5. Bridge not eligible for NRHP	1966	
53 1835	AVENUE D SEPARATION	07-LA-138-36.85	5. Bridge not eligible for NRHP	1968	
53 1836	AVENUE "A" OC	07-LA-014-R77	5. Bridge not eligible for NRHP	1968	
53 1838G	N405-W90 CONNECTOR OC	07-LA-405-25.99-CLC	5. Bridge not eligible for NRHP	1967	
53 1839M	WEST FORK LIEBRE GULCH CULVERT	07-LA-005-R74.94	5. Bridge not eligible for NRHP	1967	1970
53 1845	OLD BREA CANYON ROAD UC	07-LA-060-R22.97-DMBR	5. Bridge not eligible for NRHP	1970	
53 1846G	E60-S57 CONNECTOR OC	07-LA-060-R23.31-DMBR	5. Bridge not eligible for NRHP	1972	
53 1848G	N57-W60 CONNECTOR OC	07-LA-057-R4.32-DMBR	5. Bridge not eligible for NRHP	1972	
<u>53 1850</u>	<u>WARDLOW ROAD OC</u>	<u>07-LA-605-R.79-LBCH</u>	<u>5. Bridge not eligible for NRHP</u>	<u>1966</u>	
53 1851	ROUTE 90/405 SEPARATION	07-LA-090-2.54-CLC	5. Bridge not eligible for NRHP	1968	
53 1852F	S405-E90 CONNECTOR OC	07-LA-405-25.91-LA	5. Bridge not eligible for NRHP	1967	
53 1853G	E90-S405 CONNECTOR OC	07-LA-090-2.58-LA	5. Bridge not eligible for NRHP	1967	
53 1854G	E90-N405 CONNECTOR OC	07-LA-090-2.55-CLC	5. Bridge not eligible for NRHP	1967	1968
53 1855F	W90-N405 CONNECTOR OC (JEFFERSON)	07-LA-090-2.73-CLC	5. Bridge not eligible for NRHP	1967	
53 1856	CITY TERRACE POC	07-LA-010-C20.03-LA	5. Bridge not eligible for NRHP	1966	
53 1857	AVENUE "B" OC	07-LA-014-R76.01	5. Bridge not eligible for NRHP	1968	
53 1858	AVENUE "C" OC	07-LA-014-R75.01	5. Bridge not eligible for NRHP	1968	
53 1859	AVENUE "E" OC	07-LA-014-R73	5. Bridge not eligible for NRHP	1968	
53 1860	AVENUE "G" OC	07-LA-014-R70.99-LAN	5. Bridge not eligible for NRHP	1968	
53 1861	AVENUE "F" OC	07-LA-014-R72	5. Bridge not eligible for NRHP	1968	
53 1862	AVENUE "H" OC	07-LA-014-R69.99-LAN	5. Bridge not eligible for NRHP	1968	2002
53 1863	VERDUGO ROAD UC	07-LA-134-R8.23-GNDL	5. Bridge not eligible for NRHP	1968	
53 1864	GRAND AVENUE OC	07-LA-060-R24.45-DMBR	5. Bridge not eligible for NRHP	1970	
53 1865	WILMINGTON AVENUE OC	07-LA-091-R9.15-COM	5. Bridge not eligible for NRHP	1974	
53 1866	CHEVY CHASE DRIVE UC	07-LA-134-R8.35-GNDL	5. Bridge not eligible for NRHP	1967	
53 1867	SAN GABRIEL RIVER	07-LA-210-R36.82-IRW	5. Bridge not eligible for NRHP	1968	
53 1868M	CHARLTON STREET STORM DRAIN	07-LA-010-R8.78-LA	5. Bridge not eligible for NRHP	1964	
53 1869	HUNTINGTON DRIVE UC	07-LA-210-R32.89-MNRO	5. Bridge not eligible for NRHP	1967	
53 1870	EASTMAN AVENUE POC	07-LA-005-14.57	5. Bridge not eligible for NRHP	1967	
53 1871M	NEWHALL RANCH DRAIN	07-LA-005-R55.28	5. Bridge not eligible for NRHP	1964	
53 1872	MONTEREY AVENUE UC	07-LA-210-R33.1-MNRO	5. Bridge not eligible for NRHP	1967	
53 1873	PROSPECTORS UC	07-LA-060-R25.36-DMBR	5. Bridge not eligible for NRHP	1970	
53 1873G	E60-N57 CONNECTOR OC	07-LA-060-R25.36-DMBR	5. Bridge not eligible for NRHP	1970	
53 1874	SAWPIT WASH	07-LA-210-R34.6-MNRO	5. Bridge not eligible for NRHP	1967	
53 1875	GLENDALE AVENUE OC	07-LA-134-R7.87-GNDL	5. Bridge not eligible for NRHP	1968	
53 1876	KINCAID UP	07-LA-210-R38.35-AZU	5. Bridge not eligible for NRHP	1968	



Structure Maintenance & Investigations



Historical Significance - State Agency Bridges

District 07

Los Angeles County

Bridge Number	Bridge Name	Location	Historical Significance	Year Built	Year Wid/Ext
53 2767S	220 STREET ON-RAMP	07-LA-110-6.78-CRSN	4. Historical Significance not determined	1995	
<u>53 2768R</u>	<u>STUDEBAKER SIDEHILL VIADUCT</u>	<u>07-LA-405-.46-LBCH</u>	<u>5. Bridge not eligible for NRHP</u>	<u>1993</u>	
<u>53 2769K</u>	<u>S405 OFF RAMP SIDEHILL VIADUCT</u>	<u>07-LA-405-.66-LBCH</u>	<u>5. Bridge not eligible for NRHP</u>	<u>1993</u>	
53 2772	96TH STREET OC	07-LA-001-27.4-LA	5. Bridge not eligible for NRHP	1993	
53 2773K	39TH STREET RAMP SEPARATION	07-LA-110-19.6-LA	5. Bridge not eligible for NRHP	1996	
53 2775	VALLEY CIRCLE BLVD OC	07-LA-101-27.36-LA	5. Bridge not eligible for NRHP	1996	
53 2776R	SLAUSON AVENUE BUS POC	07-LA-110-17.93-LA	5. Bridge not eligible for NRHP	1996	
53 2777M	ROSECRANS ON-RAMP RETAINING WALL	07-LA-110-11.9-LA	5. Bridge not eligible for NRHP	1996	
53 2778R	KING SIDEHILL VIADUCT	07-LA-110-19.52-LA	5. Bridge not eligible for NRHP	1996	
53 2779	MAGIC MOUNTAIN PARKWY POC	07-LA-126-7.4-SCTA	5. Bridge not eligible for NRHP	1995	
53 2780F	S405-N710 CONNECTOR OC	07-LA-405-7.79-LBCH	5. Bridge not eligible for NRHP	1997	
53 2781	LIVE OAK CHANNEL	07-LA-030-4.4-CLA	5. Bridge not eligible for NRHP	1996	
53 2782	FAIR OAKS-E210 HOV RAMP	07-LA-210-R25.3-PAS	5. Bridge not eligible for NRHP	1996	
53 2784K	WARDLOW ROAD UC (OFF-RAMP)	07-LA-405-6.5-LBCH	5. Bridge not eligible for NRHP	1994	
53 2785S	PICO AVENUE ON-RAMP OVERHEAD	07-LA-710-5.98-LBCH	5. Bridge not eligible for NRHP	1994	
53 2786K	PICO AVENUE OFF-RAMP OH	07-LA-710-6-LBCH	5. Bridge not eligible for NRHP	1994	
53 2788	NEWHALL CREEK	07-LA-126-10.57-SCTA	5. Bridge not eligible for NRHP	1996	
53 2790L	GAVIN CANYON UC	07-LA-005-R47.83	5. Bridge not eligible for NRHP	1994	
53 2790R	GAVIN CANYON UC	07-LA-005-R47.83	5. Bridge not eligible for NRHP	1994	
53 2791	LA CIENEGA-VENICE SEPARATION	07-LA-010-R8.83-LA	5. Bridge not eligible for NRHP	1994	
53 2791S	LA CIENEGA-VENICE SEPARATION	07-LA-010-R8.83-LA	5. Bridge not eligible for NRHP	1994	
53 2792	FAIRFAX-WASHINGTON UC	07-LA-010-R9.31-LA	5. Bridge not eligible for NRHP	1994	
53 2793L	MISSION-GOTHIC UC	07-LA-118-R8.63-LA	5. Bridge not eligible for NRHP	1994	
53 2793R	MISSION-GOTHIC UC	07-LA-118-R8.63-LA	5. Bridge not eligible for NRHP	1994	
53 2794L	BULL CREEK CANYON CHANNEL	07-LA-118-R8.84-LA	5. Bridge not eligible for NRHP	1994	
53 2794R	BULL CREEK CANYON CHANNEL	07-LA-118-R8.84-LA	5. Bridge not eligible for NRHP	1994	
53 2795F	S14-S5 CONNECTOR OH	07-LA-014-R24.73-LA	5. Bridge not eligible for NRHP	1994	
53 2795G	ROUTE 14/5 SEPARATION OVERHEAD	07-LA-005-R45.58-LA	5. Bridge not eligible for NRHP	1994	
53 2796F	S14-N5 CONNECTOR OC	07-LA-014-R24.92-LA	5. Bridge not eligible for NRHP	1994	
53 2797F	S5-N14 CONNECTOR OC	07-LA-005-R45.69-LA	5. Bridge not eligible for NRHP	1994	
53 2798	SOUTH SLIDE CANYON VIADUCT	07-LA-002-28.43-PAS	5. Bridge not eligible for NRHP	1995	
53 2799	NORTH SLIDE CANYON VIADUCT	07-LA-002-28.46-PAS	5. Bridge not eligible for NRHP	1995	
53 2800F	W105-S1 CONNECTOR OC	07-LA-105-R.44-LA	5. Bridge not eligible for NRHP	1990	
53 2801F	S1-E105 CONNECTOR SEPARATION	07-LA-001-25.95-LA	5. Bridge not eligible for NRHP	1990	
53 2802F	W105-N1 CONNECTOR OC	07-LA-105-R.53-LA	5. Bridge not eligible for NRHP	1990	
53 2803K	NASH STREET OFF-RAMP OC	07-LA-105-R.98-LA	5. Bridge not eligible for NRHP	1989	
53 2805G	E105-N&S405 CONNECTOR SEPARATION	07-LA-105-R1.63-LA	5. Bridge not eligible for NRHP	1990	
53 2806S	IMPERIAL HIGHWAY ON-RAMP	07-LA-105-R1.79-LA	5. Bridge not eligible for NRHP	1989	
53 2807K	IMPERIAL HIGHWAY WB OFF-RAMP	07-LA-105-R1.79-LA	5. Bridge not eligible for NRHP	1990	
53 2808	LRT OC	07-LA-105-R1.79-LA	5. Bridge not eligible for NRHP	1989	
53 2809L	BUTTE CANYON	07-LA-005-R50.80	5. Bridge not eligible for NRHP	1994	
53 2809R	BUTTE CANYON	07-LA-005-R50.80	5. Bridge not eligible for NRHP	1994	
53 2810K	SANTA FE-S405/S405-S710	07-LA-405-7.71-LBCH	5. Bridge not eligible for NRHP	2001	

Attachment D: Historical Resources Evaluation Report

HISTORICAL RESOURCES SURVEY REPORT

San Diego Freeway (I-405) Improvement Project
SR-73 to I-605

Orange and Los Angeles Counties

12-ORA-405 PM 9.3/24.2 / 07-LA-405 PM 0.0/1.2
12-ORA-22 PM R0.7/R3.8 / 12-ORA-22 PM R0.5/R0.7
12-ORA-73 PM R27.2/R27.8 / 12-ORA-605 PM 3.5/R1.6
07-LA-605 PM R0.0/R1.2

EA 0H1000
EFIS ID 1200000180



August 2011



STATE OF CALIFORNIA
Department of Transportation

Historical Resources Evaluation Report

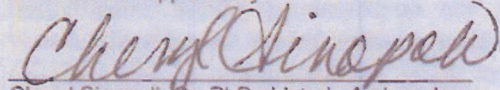
San Diego Freeway (I-405) Improvement Project From State Route (SR) 73 to Interstate 605 (I-605)

Orange and Los Angeles Counties, California

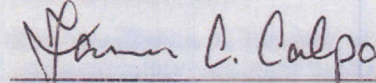
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12-ORA-73 PM R27.2/R27.8 / 12-ORA-605 PM 3.5/R1.6
07-LA-605 PM R0.0/R1.2

12-OH1000/E-FIS 1200000180

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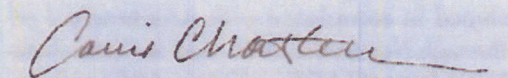
HQ PQS,
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November 2010
Revised August 2011

Summary of Findings (Abstract)

The California Department of Transportation—District 12 (Caltrans), in cooperation with the Orange County Transportation Authority (OCTA), proposes to improve mainline freeway and interchanges on Interstate 405 (I-405) for approximately 16 miles (mi). The project is primarily located in Orange County, California on I-405 (ORA PM 9.3/24.2; LA PM 0.0/1.2) between SR-73 (ORA PM R27.2/R27.8) and I-605 (ORA PM 3.5/R1.6; LA PM R0.0/R1.2). Encroachments into Los Angeles County and work on SR-22 (ORA PM R0.7/R3.8 and R0.5/R0.7) are associated with signing and striping to accommodate the transition from the existing to proposed facility.

The proposed project would relieve congestion and improve operational efficiency on I-405 between SR-73 and I-605. The project area is located in Costa Mesa, Fountain Valley, Huntington Beach, Westminster, Midway City, Garden Grove, Los Alamitos, and Seal Beach, Orange County, and Long Beach, Los Angeles County. Caltrans is the Lead Agency for compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327. OCTA is the local agency sponsor and a Responsible Agency under CEQA; the United States Army Corps of Engineers (ACOE) is a Cooperating Agency under NEPA.

This Historical Resources Evaluation Report (HRER) was prepared in compliance with the Section 106 Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans regarding compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (Section 106 PA) executed January 1, 2004. Cultural resources were identified and evaluated for listing in the National Register of Historic Places (NRHP) as required by 36 Code of Federal Regulations (CFR) Part 800 and the regulations implementing Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). This assessment also conforms to CEQA requirements and evaluates identified cultural resources in accordance with Section 15064.5(a) (2)–(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code (PRC).

The Area of Potential Effects (APE) was developed in accordance with Attachment 3 of the Section 106 PA beginning in March 2009 through November 2010, and includes both the direct archaeological study area (Area of Direct Impact [ADI] or Direct APE) and the historic architectural study area (Area of Indirect Impact [AII] or Indirect APE) area. Consistent with Caltrans policies and general cultural resources practices as outlined in the *Standard Environmental Reference (SER) Volume 2: Cultural* (State of California 2008), the archaeological study area consists of the area bounded by the ADI.

Archival research was conducted to determine the location of previously documented cultural resources proximate to the project and to help establish a context for resource significance. Pre-field survey research included a records search conducted by staff at the South Central Coastal Information Center (SCCIC) on May 29, 2009 within a half-mile radius of the project study area for historic architectural resources. It should be noted different search radii were used for the historical architectural and archaeological records searches conducted for this project. A supplemental records search was conducted by Parsons' staff on March 2 and 17, 2010 at the SCCIC. The Segerstrom House and Barn, 3315 Fairview Road, Costa Mesa, have been identified by the City of Costa Mesa through a local survey effort as eligible for listing in the NRHP under Criteria A and C; however this finding was not concurred on by the SHPO or a federal agency, and has not been entered into the California Historic Resources Inventory.

Architectural field surveys of all properties within the Area of Potential Effects (APE) were undertaken beginning in February through October 2010 according to standard Caltrans guidelines and procedures (State of California 2008). Westminster Lanes, located at 6471 Westminster Boulevard, Westminster, California, was determined to appear eligible for listing in the NRHP and the California Register of Historic Resources (CRHR) under Criterion A and 1, respectively, as a unique element of the historically significant suburban development of Orange County, which occurred following World War II. One district, Leisure World, located in Seal Beach California, was determined to appear eligible for listing in the NRHP and the CRHR under Criterion A and B and 1 and 2, respectively, as a result of this survey. All other historic architectural resources located within the APE constructed in or before 1965 were determined to not appear eligible for listing in the NRHP or the CRHR as a result of this survey.

Of the 12 archaeological sites previously recorded in the one-quarter-mile search radius, three are located within the Direct APE (CA-ORA-113, CA-ORA-162, and CA-ORA-1352), and one (CA-ORA-1502) is located adjacent but outside the Indirect APE. There are nine additional previously recorded archaeological sites that are located within the quarter-mile record search radius, but are located outside of the indirect APE. Sites CA-ORA-113 and CA-ORA-162 currently exhibit no manifestation on the surface and have been previously documented as destroyed. CA-ORA-1352 was determined to be recorded on modern fill material and is therefore not considered an archaeological site. CA-ORA-1502 is located adjacent to the Indirect APE and contains sensitive and significant surface and subsurface deposits (see ASR). Testing conducted for the Navy in 2000, determined that a midden deposit lies buried beneath the surface approximately one to over two meters. The site was evaluated as eligible for the NRHP.

The proposed project would be located within the Caltrans ROW adjacent to the historic properties/historical resources and would not result in a direct impact on these resources. Further, these resources are located in a highly urban area adjacent to heavily travelled arterial streets and existing freeways, and are already subject to air quality and noise impacts. The proposed project is not anticipated to substantially increase these indirect impacts. Therefore the proposed project would not result in a substantial increase in existing audible, visual, or atmospheric impacts. For these reasons, the proposed project

would not result in an adverse effect/substantial adverse change to these historic properties/historical resources.

It is Caltrans' policy to avoid cultural resources whenever possible; further investigation may be needed if a site(s) cannot be avoided by the project. If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in the area until a qualified archaeologist can evaluate the nature and significance of the find. In addition, Native American groups will be notified if cultural materials are encountered during construction. Additional surveys will be required if the project is revised to include areas not previously surveyed.

Table of Contents

Summary of Findings (Abstract)	i
Chapter 1 Introduction	8
1.1 Project Description.....	8
1.2 Project Alternatives.....	8
1.2.1 Common Design Features of the Build Alternatives	8
1.2.2 Unique Features of Build Alternatives	9
1.2.3 No Build (No Action) Alternative	11
1.3 Area of Potential Effects (APE).....	11
1.4 Research Methods	11
1.4.1 Other References Consulted	13
1.5 Methodology	14
1.6 Themes to Establish Historic Context.....	15
1.7 Public Participation.....	15
1.7.1 Local Government and Local Historical Society/Historic Preservation Correspondence.....	15
1.7.2 Native American Consultation.....	16
1.8 Field Methods	17
1.8.1 Historic Architecture.....	17
1.8.2 Archaeology	17
Chapter 2 Historical Overview	19
2.1 Introduction.....	19
2.2 Pastoral Era: Spanish and Mexican Periods (1542-1846).....	19
2.2.1 Exploration and Early Settlement	19
2.2.2 Transportation	20
2.2.3 Agriculture and Industry	20
2.2.4 Mexican Independence and the Secularization Act of 1833.....	20
2.2.5 Ranchos.....	21
2.2.5.1 Rancho Los Coyotes	22
2.3 Early American Period (1846-1870).....	22
2.3.1 Transition from <i>Californio</i> - to Euro-American Dominated Society.....	22
2.3.2 Transportation Developments	23
2.3.3 Agriculture and Industry	23
2.3.4 Architectural Trends	23
2.4 Era of Modern Transportation (1870-1918)	24
2.4.1 Railroad Construction	24
2.4.2 Harbor/Port Improvements, Wharfs, and Piers.....	24
2.4.3 Development of Towns and Cities.....	25
2.4.3.1 Long Beach	25
2.4.3.2 Seal Beach.....	25
2.4.3.3 Los Alamitos	26
2.4.3.4 Westminster	26
2.4.3.5 Huntington Beach	26
2.4.3.6 Garden Grove.....	27

2.4.3.7 Fountain Valley.....	27
2.4.3.8 Costa Mesa.....	27
2.4.4 Agriculture	28
2.4.5 Architectural Trends	28
2.5 1918-1941 Inter War Period	29
2.5.1 Transportation Developments	29
2.5.2 Agriculture and Industry	30
2.5.3 Development of Towns and Cities.....	30
2.5.4 Architectural Trends	30
2.6 World War II and the Post-War Boom (1940-1965)	31
2.6.1 Military Preparedness	31
2.6.2 Transportation.....	32
2.6.3 Population Growth and Expansion of Towns and Cities	33
2.6.4 Agriculture and Industry	34
2.6.5 Architectural Trends	34
Chapter 3 Archaeological Research Context	35
Chapter 4 Description of Cultural Resources	36
Chapter 5 Findings and Conclusions	37
5.1 Findings.....	37
5.2 Conclusions.....	47
5.2.1 Segerstrom House and Barn, 3315 Fairview Road, Costa Mesa, Map Reference No. 45	47
5.2.2 Westminster Lanes, 6471 Westminster Boulevard, Map Reference No. 119 .	48
5.2.3 Leisure World, 1901 Golden Rain Road, Map Reference Nos. 196, 206, 308, 309, and 310.....	48
Chapter 6 References	50
Chapter 7 List of Preparers	56
Appendices.....	57
APPENDIX A: DPR 523 FORMS	58
APPENDIX B: Public Participation	59

List of Tables

Table S-1: List of Acronyms.....	vi
Table 5.1: Properties Previously Evaluated for Inclusion in the NRHP and the CRHR.	37
Table 5.2: Properties Determined Eligible for Inclusion in the NRHP and the CRHR as a Result of This Study.....	37
Table 5.3: Properties Determined Ineligible for Inclusion in the NRHP and the CRHR as a Result of This Study.....	38

Table S-1: List of Acronyms

Acronym	Definition
ACOE	Army Corp of Engineers
ADI	Area of Direct Impact
AII	Area of Indirect Impact
APE	Area of Potential Effects
ASR	Archaeological Survey Report
Caltrans	State of California Department of Transportation
CCRs	Conditions, Covenants, and Restrictions
CE	Categorical Exclusion
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CRHR	California Register of Historical Resources
CSAs	Construction Staging Areas
DOE	Determination of Eligibility
DPR	State of California Department of Parks and Recreation
ERHA	Electric Railway Historical Association of Southern California
FHA	Federal Housing Authority
Ft	Feet
GIS	Geographical Information System
GP	General Purpose
HOV	High-Occupancy Vehicle
HPSR	Historic Property Survey Report
HRER	Historical Resources Evaluation Report
I-405	Interstate 405
I-605	Interstate 605
LRN	Legislative Route Number
MI	Mile
MVP	Maintenance Vehicle Pull-Out
MWD	Metropolitan Water District
NAD	Naval Ammunition Depot
NASA	National Aeronautics and Space Administration
NRHP	National Register of Historic Places
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NWSSB	Naval Weapons Station Seal Beach
OCWD	Orange County Water District
OCTA	Orange County Transit Authority
OHP	Office of Historic Preservation
PM	Post Mile
PRC	Public Resources Code
ROW	Right of Way
SAAAB	Santa Ana Army Air Base

SCCIC	South Central Coastal Information Center
Section 106 PA	Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans Regarding the Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California
SHPO	State Historic Preservation Officer
SLF	Sacred Land File
SR-22	State Route 22
SR-55	State Route 55
SR-73	State Route 73
TCEs	Temporary Construction Easements
USPS	United States Postal Service

Chapter 1 Introduction

1.1 Project Description

The California Department of Transportation—District 12 (Caltrans), in cooperation with the Orange County Transportation Authority (OCTA), proposes to improve mainline freeway and interchanges on Interstate 405 (I-405) in Orange County for approximately 16 miles (mi). The project is primarily located in Orange County, California on I-405 (ORA PM 9.3/24.2; LA PM 0.0/1.2) between SR-73 (ORA PM R27.2/R27.8) and I-605 (ORA PM 3.5/R1.6; LA PM R0.0/R1.2). Encroachments into Los Angeles County and work on SR-22 (ORA PM R0.7/R3.8 and R0.5/R0.7) are associated with signing and striping to accommodate the transition from the existing to proposed facility.

Within the limits of the proposed project, I-405 is a controlled-access highway facility with a fenced Right of Way (ROW), separated by grade from crossing traffic, with vehicular access limited to interchanges. Within the project area, I-405 consists of 8 to 12 mixed-flow general purpose (GP) lanes and two high-occupancy vehicle (HOV) lanes.

1.2 Project Alternatives

1.2.1 Common Design Features of the Build Alternatives

Build Alternatives 1, 2, and 3 would include the following features:

- One GP lane would be added in each direction of I-405 from Euclid Street to the I-605 interchange.
- Travel lanes on the I-405 mainline would be 12-ft-wide, and right side shoulders would be 10-ft- wide.
- The pedestrian bridge and local street overcrossings proposed for complete replacement under Alternatives 1, 2, and 3 are the following:

- ~ Ward Street
- ~ Talbert Avenue
- ~ Brookhurst Street
- ~ Slater Avenue
- ~ Bushard Street
- ~ Warner Avenue
- ~ Magnolia Street
- ~ Pedestrian overcrossing near Heil Avenue
- ~ Newland Street
- ~ Edinger Avenue
- ~ McFadden Avenue
- ~ Bolsa Avenue

~ Goldenwest Street
~ Edwards Street
~ Westminster Boulevard
~ Springdale Street
~ Bolsa Chica Road

- The Euclid Street/Ellis Avenue undercrossing bridge would be modified and extended.
- Two railroad overheads would be modified and extended.
- Each build alternative would include interchange reconfigurations at Euclid Street, Ellis Avenue, Brookhurst Street, Magnolia Street, Warner Avenue, Beach Boulevard, and Westminster Boulevard.
- Maintenance vehicle pullouts (MVP) would be included in various locations under each build alternative.

In addition, other common design features include the following: the addition of one or two GP lanes and the addition of one Express toll lane that will be managed with the existing carpool lane, bridge replacements and modifications, shoulder improvements to enhance safety, and ramp improvements. The project may include ROW acquisitions, temporary construction easements (TCEs), drainage improvements, construction of soundwalls or retaining walls, and utility relocations. In addition, construction staging and lay-down areas (CSAs) may be located within Caltrans right of way.

1.2.2 Unique Features of Build Alternatives

Alternative 1 – Add One GP Lane in Each Direction

Alternative 1 would add a single GP lane in each direction of I-405 from Euclid Street to the I-605 interchange.

Alternative 1 would provide a full standard highway cross section, with 12-foot[ft]-wide mainline travel lanes, 10-ft-wide shoulders on both left (inside) and right (outside) sides in both directions and approximately 44 soundwalls. This Alternative would require acquisition of 10.03 acres from parcels within the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster Seal Beach, and the Rossmoor Community. Construction of this alternative would require full acquisitions of 4 commercial establishments [Sports Authority (APN 143-301-39), Days Inn & Suites (APN 143-301-34), Fountain Valley Skating Center (APN 143-301-33) and Boomers (APN 143-294-01)], 151 partial acquisitions of private residences, commercial properties and public land uses. To accommodate construction access for the project, 74 temporary construction easements will also be required from properties adjacent to the proposed ROW.

Alternative 2 – Add Two GP Lanes in Each Direction

Alternative 2 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternative 1), plus add a second GP lane in the northbound direction from Brookhurst Street to the State Route 22 (SR-22)/7th Street interchange and a second GP lane in the southbound direction from the Seal Beach Boulevard on-ramp to Brookhurst Street.

Alternative 2 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes and shoulders on the left and right sides in both directions. Right side (outside) shoulders would be 10-ft wide, while left side (inside) shoulders would have a maximum width of 10 ft with a provision for consideration of a widened left shoulder for HOV enforcement areas and approximately 44 soundwalls. This Alternative would require acquisition of 12.97 acres from parcels within the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, Seal Beach, and the Rossmoor Community. Construction of this alternative would require full acquisitions of 4 commercial establishments [Sports Authority (APN 143-301-39), Days Inn & Suites (APN 143-301-34), Fountain Valley Skating Center (APN 143-301-33) and Boomers (APN 143-294-01)], 168 partial acquisitions of private residences, commercial properties and public land uses. To accommodate construction access for the project, 230 temporary construction easements will also be required from properties adjacent to the proposed ROW.

Alternative 3 – Express Facility

Alternative 3 would add one GP lane in each direction of I-405 from Euclid Street to the I-605 interchange (as in Alternatives 1 and 2), plus add a tolled express lane in each direction of I-405 from SR-73 to I-605. The tolled express lane would be placed beside the existing HOV lane in each direction. The existing HOV lanes and new toll lanes would be managed jointly as an Express Lane Facility with two lanes in each direction.

Alternative 3 would provide a full standard highway cross section, with 12-ft-wide mainline travel lanes and shoulders on the left and right sides in both directions. Right side (outside) shoulders would be 10-ft-wide, while left side (inside) shoulders would have a maximum width of 10 ft, with a provision for consideration of a widened left shoulder for Toll enforcement areas under consideration, and approximately 44 soundwalls. This Alternative would require acquisition of 15.14 acres from parcels within the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, Seal Beach, and the Rossmoor Community. Construction of this alternative would require full acquisitions of 4 commercial establishments [Sports Authority (APN 143-301-39), Days Inn & Suites (APN 143-301-34), Fountain Valley Skating Center (APN 143-301-33) and Boomers (APN 143-294-01)], 183 partial acquisitions of private residences, commercial properties and public land uses. To accommodate construction access for the project, 268 temporary construction easements will also be required from properties adjacent to the proposed ROW.

1.2.3 No Build (No Action) Alternative

The No Build Alternative provides a “baseline” for comparing impacts associated with the build alternatives because environmental review must consider the effects of not implementing the proposed project. The Project Baseline conditions under the No Build Alternative would provide no additional lanes or interchange improvements to the I-405 corridor. The project area would continue to operate with no additional improvements and would not achieve the project’s stated purpose and need.

1.3 Area of Potential Effects (APE)

The Area of Potential Effect (APE) was developed between March 2009 and November 2010 in accordance with Attachment 3 of the Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and Caltrans Regarding the Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California (Section 106 PA), and includes both the direct archaeological study area (Area of Direct Impact [ADI] or Direct APE) and the historic architectural study (Area of Indirect Impact [AII] or Indirect APE) area. Consistent with Caltrans policies and general cultural resources practices as outlined in the *Standard Environmental Reference (SER) Volume 2: Cultural* (State of California 2008), the archaeological study area consists of the area bounded by the ADI. This ADI became the study area used for archaeological studies because it represents the maximum amount of potential ground disturbances. The ADI includes all currently defined TCEs, access routes, temporary easements, acquisitions, and CSAs (hereafter called Direct APE). The historic architectural study consists of the areas bounded ADI and the area of AII. In order to account for indirect effects, the APE was expanded to include the entirety of legal parcels adjacent to the direct construction footprint. In locations where large undeveloped parcels are located, the APE was limited to the Caltrans’ right of way or a 200-foot buffer as appropriate (hereafter called Indirect APE) (see Figure 3, Attachment A of the Historic Property Survey Report (HPSR) prepared for this project for the APE maps).

In addition, the vertical APE was extended in areas to account for a maximum bridge height of approximately 25 feet above grade, and for a maximum depth of excavation of approximately 10 feet or 150 feet for augered pilings.

1.4 Research Methods

The purpose of this report is to assess cultural resources for eligibility in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). “Cultural resources” as used in this document refers to all historic architectural and archaeological resources, regardless of significance. The methodology used to assess cultural resources was to conduct a reconnaissance-level survey, conduct a subsequent

intensive-level survey, followed by an evaluation based on established criteria, and then develop findings regarding property eligibility.

Archival research was conducted to determine the location of previously documented cultural resources proximate to the project and to help establish a context for resource significance. Pre-field survey research included a records search conducted by staff at the South Central Coastal Information Center (SCCIC) on May 29, 2009. A supplemental records search was conducted by Parsons' staff on March 2 and 17, 2010 at the SCCIC. Orange County Assessor data were accessed through www.realquest.com, which is a real estate data subscription service. It should be noted the search radius used for the archaeological records search was one-quarter-mile, and the search radius used for the built environment records search was one-half-mile.

Background research of the area was conducted using the California Historic Resources Information System (CHRIS) at the SCCIC. Results of this background research identified a total of 12 known cultural resources that occur within the Direct APE and a one-quarter mile search radius. Of the 12 resources identified, three are historic-period architectural resources which include the Segerstrom House (P30-176764) and historic period barn (P30-176765), and Naval Weapons Station Seal Beach (NWSSB; P30-179859). The remaining 9 previously recorded resources are archaeological sites, three of which are mapped within the Direct APE (CA-ORA-113, CA-ORA-162, and CA-ORA-1352). The six previously recorded archaeological sites that remain are located outside of the Direct APE but are within the one-quarter mile record search radius.

The Segerstrom House and Barn were determined eligible for listing in the National Register as a result of a local survey effort. This finding was not concurred with by the State Historic Preservation Officer (SHPO) or a federal agency, and was not entered into the California Historical Resources Inventory database (database). NWSSB is listed in the database as 6Y and 7J (buildings/structures outside of the Indirect APE).

Sites CA-ORA-113 and CA-ORA-162 currently exhibit no manifestation on the surface. The site record for CA-ORA-113 describes this site as largely destroyed. The site location shows signs of heavy disturbance due to heavy equipment. Further investigation of this site indicates that the site was destroyed during the construction of a highway onramp to the San Diego Freeway. Similarly, the site record for CA-ORA-162 describes the site as largely destroyed with what remains showing signs disturbance. Site CA-ORA-1352 was previously tested for subsurface archaeological deposits and resulted in negative findings both times. Previous testing and current survey results determined that this site is situated on imported fill and was recorded after the fill was brought into the area for construction of the I-405, therefore this is not an archaeological site (see Attachment B, Archaeological Survey Report for further discussion regarding these sites).

National, state, and local inventories of cultural resources were examined to identify local historical events and personages, development patterns, and interpretations of architectural styles.

The following standard sources of information were consulted in the process of compiling this report:

- NRHP web site (<http://www.cr.nps.gov/nr>), through October 2009;
- California Historical Landmarks;
- California Points of Historical Interest;
- City of Long Beach public records;
- City of Long Beach public library (El Dorado Branch);
- City of Hawaiian Gardens public library;
- Orange County public records;
- City of Seal Beach public records;
- City of Seal Beach public library;
- City of Los Alamitos/Rossmoor public records;
- City of Los Alamitos/Rossmoor public library;
- City of Garden Grove public records;
- City of Garden Grove public library;
- City of Westminster public records;
- City of Westminster public library;
- City of Huntington Beach public records;
- City of Huntington Beach public library;
- City of Fountain Valley public records;
- City of Fountain Valley public library;
- City of Costa Mesa public records;
- City of Costa Mesa public library; and
- City of Seal Beach public records.

1.4.1 Other References Consulted

A Categorical Exclusion (CE) was prepared for the Orange County Water District (OCWD) Plant No. 1-101 – Upgrade to Secondary Treatment Project (see Figure 3 in Attachment A of the HPSR prepared for this project. Specifically, Map Sheets 15 and 16). The CE indicates no known cultural resources are located on the site, and the State Historic Preservation Officer (SHPO) concurred with the finding of No Historic Properties Affected in a letter dated April 10, 2010 (see Appendix B for copies of this correspondence and a detailed results table). Additional research in the OCWD archives indicates several projects have been executed which impacted the integrity of nearly every building or structure located on the site. Therefore, the OCWD site is exempt from review under Attachment 4 of Section 106 PA.

In addition, there are four relevant archaeological studies conducted recently for the West Orange County Connection Phase II – I-405/SR-22 and I-405/I-605 HOV Connector Project within or adjacent to the Direct. These reports are summarized below.

1. In May 2009, a supplemental archaeological survey report for the I-405/SR-22 APE was completed and the results were negative (Mason 2009a)
2. In September of 2009, a supplemental archaeological survey report prepared for the I-405/I-605 APE identifying previously recorded and previously tested site CA-ORA-1502 within the APE (2009b).
3. In September of 2009, an extended Phase I testing report for site P30-001502/CA-ORA-1502 was completed. The testing program involved the excavation of four backhoe trenches all of which resulted in negative findings (Mason 2009c).
4. In March of 2010 a second supplemental archaeological survey report prepared for the I-405/SR-22 APE was completed and the results were negative (Mason 2010b).

The Segerstrom House and Barn, 3315 Fairview Road, Costa Mesa, have been identified by the City of Costa Mesa through a local survey effort as eligible for listing in the NRHP; however this finding was not concurred on by the SHPO or a federal agency, and has not been entered into the California Historic Resources Inventory. In addition to the site records and reports on file at the SCCIC, historic maps were also reviewed and include: the Tustin, Newport Beach, Seal Beach, and Los Alamitos 7.5" Quadrangles. The maps were reviewed to determine if the historical record contains any additional information to indicate the potential for historic, prehistoric, and/or protohistoric archaeological deposits within the project study area. The review of these maps showed the evolution of the physical development of the area, including the development of roads, railroads, and communities, but did not contain any information of archaeological interest.

1.5 Methodology

Because individual examples of post-World War II housing typically would not be considered eligible for listing in the NRHP as an individual resource, the resources were evaluated within the context of a subdivision in order to ascertain if the subdivision possesses historically significant associations with events, persons, and/or embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that represents a significant and distinguishable entity whose components may lack individual distinction. According to the National Register Bulletin "*Historic Residential Suburbs*" (Ames and McClelland 2002), a historic residential suburb is "a historic district comprised of sites (including overall plan, house lots, and community spaces), structures (including walls, fences, streets and roads both serving the suburb and connecting it to corridors leading to the larger metropolitan area), and objects (signs, fountains, statuary, etc.). Information culled from various repositories was used to identify residential subdivisions, and the subdivisions were evaluated for NRHP and CRHR eligibility in accordance with the National Register Bulletin "*Historic Residential*

Suburbs” (Ames and McClelland 2002). In order to identify subdivisions, research was conducted in Orange County public records for tract maps in order to cull developer and/or owner information, in city public records to access building permits as available for owner, architect, and contractor information, and the tracts were mapped with Geographic Information System (GIS) software to determine subdivision boundaries based on natural features, such as waterways, interior circulation, and barriers such as freeways, arterial streets, and utility easements. Based on the windshield survey, buildings that were exempt from review under Attachment 4 of the PA were not researched.

In order to establish an integrity threshold, subdivisions were informally surveyed to determine common architectural and landscape designs, alterations, and relative amount of in-fill construction (documentation of entire subdivisions was beyond the scope of this project). Buildings/structures exempt from review under Attachment 4 of the PA were not documented for this project. In order to establish an integrity threshold for a given subdivision, the number of parcels documented in a given subdivision was divided by the total number of parcels located within the APE for that subdivision. Subdivisions containing greater than 50 percent documented buildings/structures were deemed to possess sufficient integrity to be considered eligible for inclusion in the NRHP and the CRHR.

1.6 Themes to Establish Historic Context

The record search was used to establish the historical context and appropriate research themes within which the resources within the APE were evaluated. The research themes included:

- Development of Orange County, and development of the Cities of Seal Beach, Fountain Valley, Westminster, Garden Grove, Huntington Beach, Hawaiian Gardens, and Costa Mesa;
- Development of transportation systems- rail and highway; and
- World War I and II – industrial and post-war housing boom

1.7 Public Participation

1.7.1 Local Government and Local Historical Society/Historic Preservation Correspondence

A meeting was held with members of Parsons, Caltrans, and NWSSB staff on August 19, 2009 for the purpose of introducing NWSSB staff to the proposed project and to solicit information regarding cultural resources located on NWSSB grounds. Ms. Lisa Bosalet indicated no historic-period buildings and/or structures are located within the proposed Indirect APE.

Letters requesting information on cultural resources were sent to relevant local government and local historical society/historic preservation groups were sent via United States Postal Service (USPS) on December 14, 2009. An additional letter was sent to the City of Hawaiian Gardens, Community Development Department, on September 20, 2010. The USPS returned the letter sent to the Garden Grove Historical Society on January 21, 2010 because the address forwarding time had expired. No known cultural resources located within the APE were identified as a result of this public participation process (see Appendix B for copies of the correspondence and a detailed results table).

1.7.2 Native American Consultation

A records search of the Sacred Lands File (SLF) maintained by the California Native American Heritage Commission (NAHC) was initiated by URS Corporation in July 2009 and a response was received in September 2009. According to the NAHC, no sites within their SLF are located within the immediate project area. The NAHC provided a list of Native American individuals and organizations. Letters and maps were sent by URS Corporation to these contacts to inform the individuals and organizations about the project, to inquire if they knew of any unrecorded Native American cultural resources or other areas of concern within or adjacent to the project APE, and to solicit comments in regard to the project. A map depicting the project APE was included with the letters (see Exhibit A.2 - Native American Consultation of the ASR in Attachment B of the HPSR prepared for this project).

The NAHC was again contacted in May 2010 for supplemental information due to revisions in the original project limits. According to the NAHC, no cultural resources within their Sacred Lands Files are located within the Direct APE. The NAHC provided a new list of Native American contacts that may have an interest in the project. URS followed up with another letter to the individuals and organizations to solicit their comments. Follow-up phone calls were made in June 2010. Of the tribal representatives contacted, no responses were received except Sonia Johnston, Tribal Vice Chairperson of the Juaneño Band of Mission Indians indicated she had no comments at present, but requested to be notified if sites were identified as a result of this project. Anita Espinosa of the Juaneño Band of Mission Indians did not comment on the project, but requested to be notified in the event sites were identified as a result of this project and requested that a Native American monitor be present during the project. In May 2010, a call from Anthony Morales, Chairperson of the Gabrielino/Tongva San Gabriel Band of Mission Indians, was received regarding the notification letter pertaining to the Project. Mr. Morales stated that sites may be located in or near the San Gabriel River just off the I-605, along SR-22 near Bolsa Chica Creek, and on the NWSSB south of the I-405. Mr. Morales also asked if there would be any Native American observers on the survey, and if not, when they would become involved, and he also stated that he would like follow-up correspondence at the conclusion of the field survey, or a phone call after the survey was completed, to let him know if anything was found. A more detailed summary of the conversation with Mr. Morales and copies of the letters and maps sent to Native

American representatives are included in Exhibit A.2 of the ASR included in Attachment B of this Historic Property Survey Report (HPSR) prepared for this project.

1.8 Field Methods

1.8.1 Historic Architecture

In accordance with standard Caltrans guidance and procedures, all properties containing buildings and/or structures that are 45 years of age or older (were constructed in or before 1965) were evaluated for eligibility for listing in the NRHP and/or the CRHR or exempted from review under Attachment 4 of the Section 106 PA. A reconnaissance-level field survey of all properties developed with buildings, groups of buildings, or structures within the project APE was undertaken in January and July 2010 by Carrie Chasteen, Senior Architectural Historian, Parsons, who acted as principal architectural historian for this project. The purpose of the reconnaissance-level survey was to identify properties exempt from review under Attachment 4 of the PA and to identify properties requiring evaluation for the NRHP and/or the CRHR in accordance with Caltrans' policies and guidelines (State of California 2008). An intensive-level survey was conducted from February 2010 to October 2010 of all remaining properties which were not determined to be exempt from review under Attachment 4 of the Section 106 PA. Each parcel was observed from the ROW. Digital photographs and notes were taken for all buildings, groups of buildings, and/or structures visible from the public ROW. Subdivisions were informally surveyed to determine common architectural styles and alterations; however, documentation of entire subdivisions was beyond the scope of this project.

Because this Historical Resources Evaluation Report (HRER) is being used for compliance with the NEPA and CEQA, the emphasis of the field investigation was to identify those properties that appear potentially eligible for the NRHP, the CRHR, or local designation as applicable.

1.8.2 Archaeology

Initial field inspection of the project site was conducted by URS archaeologists from the Los Angeles office. The Direct APE was subjected to intensive, pedestrian, reconnaissance, and windshield surveys for cultural resources on August 17-19, 2009, by URS archaeologists Laurie Solis, Mark Neal, Suzie Black, and Nathan Orsi, utilizing 15 meter-wide transect intervals where feasible. To further address potential impacts to archaeological resources due to changes in the project footprint, and to complete the 2009 survey, a pedestrian survey of portions of the Direct APE was conducted on May 26 and 27, 2010, by URS San Diego staff archaeologists Sarah Mattiussi and Dustin Kay.

The areas of the Direct APE that were open (undeveloped) were subjected to an intensive pedestrian survey for archaeological resources. The majority of the Direct APE consists of highly urbanized, developed lands that contain few areas of open, undisturbed ground.

The survey areas within the Direct APE identified as modern (less than 50 years old) urban development (ex. modified natural waterways, medians, interchange landscaping, city streets, parking lots and driveways, and parks and recreational facilities) were subject to windshield survey. All previously recorded cultural resources recorded in the Direct APE were intensively field checked to determine the present condition of these resources.

Chapter 2 Historical Overview

2.1 Introduction

This chapter describes the cultural setting beginning with the Euro-American settlement of Orange County (known as the Mexican Period) for the general project region to provide a context for understanding the types, nature, and significance of the cultural resources identified within the overall APE. The information regarding the historical overview is derived from the results of record search conducted by staff at the SCCIC on May 29, and March 2 and 17, 2009, and additional research in the repositories identified in Section 1.4. See Chapter 4 in the ASR, Attachment B of the HPSR prepared for this project, for a discussion of the environmental, prehistoric, ethnohistoric, and early Euro-American development of the general project area.

2.2 Pastoral Era: Spanish and Mexican Periods (1542-1846)

2.2.1 Exploration and Early Settlement

Spanish exploration of South and North America was largely pursued in order to establish trade routes, to promote the Catholic religion, and to search for gold. In 1542, Viceroy de Mendoza commissioned Juan Rogriguez Cabrillo to explore the coast of Alta, or Upper, California, in search of the Strait of Anian, which purportedly linked the Atlantic and Pacific Oceans. Cabrillo and his men anchored in San Diego Bay, thus initiating European contact with Native American inhabitants on September 28, 1542. Cabrillo led similar expeditions in Monterey and San Francisco Bays as well. Spanish interests were pursued by the Catholic Jesuits who established a mission system from San Diego to Sonoma County. The Jesuits established mission churches, ranches, ranch-related industries, explored and mapped Alta California, and wrote descriptions of local flora, fauna, and the landscape. Beginning in 1768, General Jose de Galvez embarked on an effort to settle Alta California, and the first step was to replace the Jesuits with Franciscans from the College of San Fernando in Mexico City, where Father Junipero Serra was serving as father-president. Galvez joined forces with Father Serra and Captain Gaspar de Portola to lead the “Sacred Expedition” in order to foster settlement in Alta California. The Sacred Expedition split the explorers into four groups who began exploration near the San Diego Bay with a planned rendezvous at the Bay of Monterey; two traveled by land and two traveled by sea. Captain Portola explored much of what became San Diego and Orange Counties on land, arriving at the Bay of Monterey in 1769 (Starr 2005). Father Serra, in the meantime, established missions, including the Mission San Juan Capistrano in 1776, along El Camino Real (California Missions Resource Center 2010). Thus the Spanish-ruled mission system, including ranch lands tended by the Native American population, was further established.

Most of the lands under the Spanish system were owned by the Missions, however, a few grants, called ranchos, were given to private individuals. In 1784, Governor Pedro Fages granted ranchos to Jose Maria Verdugo, Juan Jose Dominguez, and Manuel Nieto, all of whom served in the company of *soldados de cuero*, or “leather-jacket troops,” that Fages had led to California in 1769 (Cleland 1952). These early ranchos were used for homesteading, raising cattle, and subsistence dry farming.

Architecture dating to this period is found throughout the southwestern region of the United States. A typical building from this time period is one-story with a flat roof, parapet wall, walls constructed of earthen (adobe) bricks and/or stone with a mud plaster coat, several narrow windows with hides used to close the openings, and several pedestrian openings (McAlester 1992).

2.2.2 Transportation

One of the oldest roads in the State of California is the El Camino Real. The El Camino Real was established to connect the missions, which were situated roughly one day’s travel by horseback apart (cahighways.org 2010a). The El Camino Real has been used continuously, and has been incorporated into various elements of the modern freeway system.

Under the Spanish regime, marine-based travel was forbidden except at the Bay of Monterey (Silka 1993). Therefore, Orange County’s coastline remained undeveloped in terms of harbors and ports.

2.2.3 Agriculture and Industry

The mission system was established by the Catholic Church in cooperation with the Spanish government as a program of settlement and development (colonization) that spread from Baja California to Alta California (Starr 2005). The settlement pattern that resulted from this system allowed the religious order to claim hundreds of acres of land in the name of Spain in order to establish a church to convert the Native American population (called neophytes), and lands on which to grow crops and livestock to sustain themselves and provide commodities, such as hides and tallow, to sell or barter. Native Americans were largely forced to work on the mission grounds, often losing their cultural identity in the process.

2.2.4 Mexican Independence and the Secularization Act of 1833

Mexico achieved its independence from Spain in 1821. Through the establishment of a federal constitution, the United Mexican States sought to model their government as a civil society based on a secular order, much like the federal republic of the United States (Starr 2005). In order to achieve this goal, the Mexican government passed the Secularization Act of 1833, which revoked religious ownership of the missions and associated ranches, and these lands were given to wealthy Mexican landowners and also

to reward service in the Mexican military. This tributary land grant system is also known as the rancho system. When the act was passed, the Mission San Juan Capistrano controlled several hundred square miles of grazing lands, which were subsequently divided into separate units or ranchos (Cleland 1952). Land grants were given to persons who were Mexican citizens who gave the location, boundaries, approximate size, and identifying landmarks of the desired tract, which were documented on a *diseño*, or rough topographical map. The applicant also had to declare ownership of the legally required holdings of cattle and horses (Cleland 1952). Some owners could not prove title to the land, some owners were victimized by people exploiting the system, and some owners easily proved ownership and retained their rights to their lands. The ranchos fostered settlement, which ultimately lead to the establishment of towns and cities.

2.2.5 Ranchos

Several ranchos were awarded in the project area as result of the Secularization Act, and include the following: Los Nietos, Rancho Los Alamitos, Rancho Los Coyotes, Rancho Los Cerritos, and Rancho Las Bolsas Grande.

Rancho Los Nietos includes portions or all of the following cities: Lakewood, Long Beach, Los Alamitos, Seal Beach, Westminster, Fountain Valley, and Huntington Beach (Carpenter 2003). Pedro Fages, the Spanish governor of California, granted Manuel Nieto, a member of the Portola expedition, in 1784. The acreage was reduced to 167,000 acres in 1790. Nieto raised livestock and built an adobe home on a hilltop near today's Anaheim Road. Following Nieto's death in 1804, his heirs divided the land grant known as Los Coyotes into five smaller ranches, including Rancho Los Alamitos and Rancho Los Cerritos (Sapphos Environmental, Inc. 2009).

Upon Nieto's death, Governor Figueroa ceded Rancho Los Alamitos and Rancho Los Coyotes to Juan Jose Nieto. Rancho Los Alamitos includes the City of Los Alamitos, and portions of Seal Beach and Westminster. Soon after receipt of the land, Nieto sold the land back to the governor. Figueroa formed the *Compania Agricultura*, which was overseen by Jose Justo Morillo. Figueroa died shortly afterwards, and his brother Francisco ran the *compania*, until selling the land to Abel Stearns in 1842 (Carpenter 2003).

Nieto's daughter, Manula Cota, inherited Rancho Los Cerritos in 1834. The property was bounded by the Los Angeles River and the Pacific Ocean. Cota resided on the land with her husband and their children, raising livestock. Cota built at least two adobes on the land for her family. After her death, her children sold Rancho Los Cerritos to John Temple, a Massachusetts-born trader and entrepreneur who had invested in Los Angeles real estate. Temple had married into the Cota family, thus granting him the necessary Mexican citizenship required to own land. Temple raised livestock on the land, and maintained a lucrative business trading hides through the San Pedro harbor (Sapphos Environmental, Inc. 2009).

2.2.5.1 Rancho Los Coyotes

Ranchos Las Bolsas Grande includes portions of Garden Grove, Fountain Valley, and Westminster. “Bolsas Grande” translates to “pockets” or “patches” and refers to the rich soil found throughout the rancho. Originally part of Rancho los Nietos, the land was ceded to Nieto’s second oldest son, Jose Antonio, upon his death. Jose Antonio passed away before receipt of the title, and his share went to his widow Caterina. Caterina acquired the grant in her own name, had the land surveyed, and took judicial ownership of the rancho. In 1841, she sold two square leagues from the southwestern corner of her rancho to her brother, Joaquin Ruiz, and the resulting rancho was known as Bolsa Chica, or “Little Pocket.” By 1861, Abel Stearns had acquired both ranchos (Carpenter 2003).

Spanish Colonial is the name assigned to buildings constructed from 1600 to 1850 in the southwestern United States. Common features include one-story masonry construction. Walls are typically thick, constructed either adobe (earthen) bricks or stones, and often clad in protective stucco, a low-pitched or flat roof with parapet wall, multiple external entryways, and a few window openings with interior shutters (McAlister 1992). The Nieto adobe exemplifies this architecture style and is still extant near California State University, Long Beach.

2.3 Early American Period (1846-1870)

2.3.1 Transition from *Californio*- to Euro-American Dominated Society

Euro-Americans began traveling west in pursuit of personal wealth, religious freedom, and the ability to acquire land. The rancho system persisted in Alta California until the culmination of the Mexican-American War in 1846, when Mexico ceded California to the United States through the Treaty of Guadalupe Hidalgo. A small deposit of gold in the San Fernando valley was discovered in 1842 (Bevil 2007). A large gold deposit was discovered in 1849 in the mountains east of San Francisco, which resulted in a massive Euro-American population boom in California. Towns were established to outfit miners, and some towns, such as San Francisco, became cities as a result of the Gold Rush. In order for the United States government to claim ownership of the natural resources located within Alta California, California was established as a state in 1850. Prior to being granted statehood, California was divided into 27 counties, one of which was Los Angeles. In addition, the City of Los Angeles was incorporated in 1850 and was statutorily declared the county seat (Sapphos Environmental, Inc. 2009; lacounty.gov 2010). In 1851, a Land Commission was established to verify ownership claims of the ranchos. As often as not, ownership of the ranchos was deemed invalid, thus opening large tracts of land for purchase to such notable men as Abel Stearns, James Irvine, and Llewellyn Bixby who were instrumental in the development of southern California (Cleland 1952). Though many lands changed hands, the economy remained agriculturally based, with an emphasis on raising livestock and crops.

2.3.2 Transportation Developments

The Gold Rush caused the need for transportation, and stagecoach lines were established to meet this need. The Butterfield Stagecoach, which ran from St. Louis, Missouri to San Francisco, California, is perhaps the most notable of the lines. Another heavily traveled line was run by Seeley and Wright, and allowed for travel from San Diego to Los Angeles (Ramsey 1973). In addition, the Los Angeles- San Diego stage coach road, known as the El Camino Viejo, allowed for travel of people and goods between these two cities (Cleland 1952).

The Anaheim Colony was founded in 1857 by the Los Angeles Vineyard Society. The colony of German immigrants was formed primarily for the production of wine. In need of a wharf to aid shipment of their wine, the colony constructed a wharf, known as Anaheim Landing, in 1864 in what is now known as the City of Seal Beach. Anaheim Landing facilitated the export of wine and import of lumber and goods to sustain colonial efforts. The Southern Pacific Railway established a line to Anaheim in 1875, and the Anaheim Landing fell out of service. As early as 1870, local farmers realized the recreational attraction of Anaheim Landing, and the wharf was an early tourist attraction (MacArthur 1959).

2.3.3 Agriculture and Industry

During the years of 1860-1861, drought struck. Cattle died as a result, and ranchers attempted to sell their emaciated animals at any price to recoup some of their costs. Beef prices dropped to as low as two cents a pound, and animals were also slaughtered for whatever products could be had. The drought period was immediately followed by a period of intense rains at the end of 1861, which resulted in extensive flooding throughout much of the state. The floods caused several thousand head of cattle to drown in lowland areas, but successfully replenished the water supply and helped to restore vegetation. The drought of 1864 was perhaps the worst of the disasters of the 1860s. The cattle industry did not survive the drought of 1864 as many ranchers were forced to give up their lands. The drought of 1864 brought economic ruin to much of southern California (Cleland 1922).

2.3.4 Architectural Trends

The most common architectural style of this time period found in southern California is the Italianate style. Residential buildings are typically two-stories, though cottages were often one-story, with a low-pitched roof with wide overhangs often accented with decorative brackets, tall narrow windows, often accented with arched or curved casings. Many residential buildings are often accented with a cupola or tower, which is often not found on commercial buildings (McAlister 1992).

2.4 Era of Modern Transportation (1870-1918)

2.4.1 Railroad Construction

With the establishment of rail lines in California, the stagecoach companies quickly became obsolete. The railroads allowed for faster travel, which escalated Euro-American settlement in California, and furthered local economies. Collis P. Huntington, Mark Hopkins, Charles Crocker, and Leland Stanford, known as the “Big Four,” joined forces with Theodore Judah in 1861 to finance and establish the Central Pacific Railroad (Orsi 2005). The Big Four eventually ousted Judah from the Board of Directors of the Central Pacific Railroad, and successfully completed the construction of the Central Pacific Railroad. The Union Pacific Railroad was constructing tracks from the east at that time, with the intent to join the Central Pacific Railroad in the Great Basin. On May 10, 1869, Stanford drove the “golden spike” in the railroad, which successfully completed the first transcontinental railroad (Orsi 2005). Other companies were formed and other routes were sought in an effort to break up the monopoly established by the Big Four. The Southern Pacific Railroad completed its Los Angeles route in 1880, and the Santa Fe Railway completed its route in 1886 (Iacounty.gov 2010). The establishment of the transcontinental rail system furthered Los Angeles’ role in the economic development of both southern California and throughout the United States. The Southern Pacific Railroad also built lines travelling from Los Angeles to San Diego, with several stops in between, such as in the communities of Santa Ana and Tustin.

The Pacific Electric Railway, originally known as the Pico Street Electric Railway, was established in 1888, and quickly supplanted the cable car system as a more efficient and faster method of travel. Henry E. Huntington, nephew of railroad magnate Collis P. Huntington, acquired the Los Angeles Railway Company in 1898, which was redefined and incorporated in his Pacific Electric Railway (Electric Railway Historical Association of Southern California [ERHA] 2010a). Huntington established the Los Angeles Inter-Urban Electric Railway in 1903, which operated on the Southern Pacific Railway line, and allowed patrons to travel to neighboring communities (ERHA 2010b). In Orange County, one of the first commuter rail lines built within the Southern District was the Santa Ana-Orange Line. The Santa Ana-Orange Line was built as a horse-car line by the Santa Ana, Orange, and Tustin Street Railway Company between 1886-1887 (ERHA 2010c). In 1904, a syndicate known as the Huntington Beach Company, of which Huntington was a member, acquired Pacific City (Armor 1921). Pacific Electric Railway established rail service connecting the seaside village of Pacific City, now known as Huntington Beach, with the City of Los Angeles and several points in between. The result of Huntington’s efforts was various communities within both Los Angeles and Orange Counties were connected by light rail, which fostered additional suburban development.

2.4.2 Harbor/Port Improvements, Wharfs, and Piers

The Anaheim Landing languished as a functioning commercial wharf during this time period, and was used primarily for recreational purposes. However, the need for a port to

promote commerce continued. In 1870, Newport Landing was established on the inner shores of Newport Bay, in what is now known as Newport Beach. The steamer *Vaquero* was used to establish ferrying service of goods from ocean-going vessels into the harbor, and the steamer left Newport Landing shortly after its establishment. In 1875, James McFadden re-opened the Landing with the arrival of the steamer *Newport*. In 1888, the McFaddens built an ocean wharf, and constructed the Santa Ana and Newport Railway in 1891 to allow for the transfer of goods from ocean vessels to the intercontinental rail system. In 1899, the McFaddens sold both the wharf and the rail line to the Southern Pacific Railroad, which subsequently established the Newport Harbor Lines in 1912. The McFaddens turned their efforts to real estate development after selling the railway and landing.

2.4.3 Development of Towns and Cities

Early development in the project study area began largely as agricultural-based villages and small towns located primarily on the Pacific Ocean. Orange County was created from a portion of Los Angeles County on June 4, 1889, and Santa Ana was established as the county seat of the same year (Sleeper 2004).

2.4.3.1 Long Beach

Settlement within the Long Beach area began as early as 1875, when Jotham Bixby began selling lots along the Los Angeles River in the area that is now west Long Beach, near Willow Street and Santa Fe Avenue. The Cerritos Colony consisted of farms and homes, as well as the area's first school house, Cerritos School (Hillburg 2000).

The second attempt at settlement began in 1881, when William Erwin Willmore entered into an agreement with J. Bixby & Co. to develop the American Colony with a 350-acre town site known as Willmore City. In June 1884, the American Colony was purchased by the San Francisco real estate firm Pomeroy and Mills, who reorganized as the Long Beach Land and Water Company, and the American Colony and Willmore City were renamed Long Beach at that time. In Long Beach, the real estate boom of the 1880s attracted many new residents because of strong ties to religious organizations and strict prohibition rules. On February 10, 1888, the City was incorporated, with 800 citizens and approximately 59 buildings (Sanborn Map Company 1888-1969; Johnson Heumann Research Associates 1988).

2.4.3.2 Seal Beach

The Bayside Land Company, a syndicate headed by Philip Stanton, was formed for the purposes of establishing and promoting a townsite after purchasing the Isaac Hellman and John and Jotham Bixby-owned portion of the Rancho Los Alamitos. The townsite was originally known as Bay City. By 1904, the Pacific Electric Railway had several lines throughout Orange County, which brought people to Bay City for pleasure and also played a significant role in the early development of the city. Bay City was incorporated

in 1915, and the name was changed to Seal Beach at that time in order to avoid confusion with San Francisco, commonly known as the “Bay City” (Alioto 2005).

In 1916, the Anaheim Landing pier was rebuilt, and turned into an amusement center, complete with a roller coaster and daredevil acts of courage. The new pier, known as the Joy Zone, also contained swimming “plunges,” or pools, restaurants, and other services to cater to tourists. The Pacific Electric Railway brought 20,000 visitors to the Joy Zone weekly. The popular tourist destination resulted in a local real estate land boom as people flocked to the community for work. The Joy Zone and Seal Beach prospered until the Great Depression of the 1930s, which caused the closure of the Joy Zone, and the pier was ultimately absorbed into the NWSSB in 1944 (Alioto 2005).

2.4.3.3 Los Alamitos

In 1896, William Clark bought 8,139 acres from a portion of the Hellman and Bixby owned Rancho Los Alamitos for raising sugar beets, and for the purposes of establishing a sugar refinery, the first in southern California, and company town (Walker 2006; Los Alamitos Area Chamber of Commerce 2007). The sugar refinery closed in 1921, and was converted to process horse meat to dog food. The refinery eventually closed during the Depression (Los Alamitos Area Chamber of Commerce 2007). Los Alamitos remained an agricultural community until the real estate boom associated with post-World War II suburbanization, as evidenced by its 1960 incorporation date.

2.4.3.4 Westminster

Westminster was the second colony established in what is now known as Orange County, and became a thriving agricultural and dairying area (Reichman and Cardinale 1987). In 1870, Presbyterian Minister Lemuel P. Webber purchased 6,000 acres of the Stearns Ranchos. Webber’s intent was to establish a religious colony with like-minded individuals, and began selling 40-acre farms. Westminster was named in honor of the 1643 Westminster Assembly which established the Presbyterian religion. Locally known as the “Gospel Swamp,” early agricultural efforts included efforts to tame the waters of the local artesian wells in order to raise crops (Neugebauer 2004). Westminster largely remained an agricultural town until the real estate boom associated with the post-World War II suburbanization phenomena converted thousands of acres of agricultural lands to residential tract developments as evidenced by its 1957 incorporation date.

2.4.3.5 Huntington Beach

Originally known as Shell Beach in honor of a midden of shells discovered by early farmers, the establishment of Pacific City is generally attributed to William Newland with his purchase of over 500 acres of land in 1899 (Emmons 1988; Milkovich 2004). The Newlands played a major role in not only establishing the town, but also the school district. Newland established the *Huntington Beach News* in 1905, and also owned the Huntington Beach Cannery.

In 1904, the Huntington Beach Company, a corporation which H. Huntington was one of the major stock owners of, acquired Pacific City, and changed the name to Huntington Beach. By July of the same year, the Pacific Electric Railway had established rail service to Huntington Beach, and the town began to prosper (Armor 1921). Huntington Beach was incorporated in 1909.

In 1914, 36 acres were subdivided into 360 small parcels, which were generally considered worthless. The parcels were given away as an incentive to buy encyclopedias. In 1920, oil was discovered, and the parcels turned their owners into millionaires overnight. Huntington Beach was densely developed with oil rigs during the 1920s, and the town continued its economic dependence on this extractive industry until the 1950s (Santiago nd).

2.4.3.6 Garden Grove

In 1874, Dr. Alonzo D. Cook purchased 160 acres, and donated land for a post office and school. Thus, the community of Garden Grove was established. In order to further agricultural endeavors, the Allen family established the first pumping plant in 1907, and irrigation service began in 1910. Another important local industry was lumber. The Garden Grove Lumber and Cement Company was established by WM Jencks in 1905, which operated at the same location until the 1980s (Garden Grove Historical Society 2005). Lumber and agriculture were the primary industry until it the community was swept up in the postwar suburbanization movement, as evidenced by its 1956 incorporation date.

2.4.3.7 Fountain Valley

Fountain Valley, named for artesian wells found throughout the area, was established in the late 1800s when Euro-American settlers, such as the Wardlows and Talberts, moved to the area to farm crops and raise sheep. Originally known as the village of “Talbert,” Tom Talbert established a post office in 1899, and the name of Talbert was approved by the postal service; thus the town was officially named (Dick 2004). Talbert established a system of drainage channels beginning in 1904, and also formed the Newbert Protection District to tame the Santa Ana River. Talbert’s efforts were successful, and agriculture remained the primary industry until the 1950s when the suburbanization movement took over and the City of Fountain Valley was incorporated in 1957 (Gibb 2007).

2.4.3.8 Costa Mesa

What is now known as the City of Costa Mesa originally consisted of three loosely related communities: Fairview, Paularino, and Harper. Fairview was established in response to the 1880s land boom which affected all of southern California. A syndicate named the Fairview Development Company purchased land and platted the townsite beginning in 1887. The Santa Ana, Fairview, and Pacific Railroad was established to include the town in the rail network exploding in California and the United States at that

time, and was an economic boom to the village. Fairview declined after the tracks of the Santa Ana, Fairview, and Pacific Railroad were washed out in 1889. Paularino was established by a group of farmers as a business center to service their needs. Paularino, named for Eduardo Polloreno, consisted of a few farm houses, a school, a railroad siding, and a warehouse. In 1891, Harper was formed, and was named for Gregory Harper, Jr. Harper village prospered due to the Santa Ana and Newport Railroad. A contest was held to rename the area, and Alice Plumer won \$25 with her entry “Costa Mesa” in 1920, and eventually all three communities were merged into the City of Costa Mesa, which was incorporated in 1953 (Miller 1970; Costa Mesa Historical Society 2009).

2.4.4 Agriculture

In 1893, the first Washington Navel orange was planted in the City of Riverside (California Historical Landmark No. 20). In October 1895, the Southern California Fruit Exchange was formed as a cooperative for packaging and shipping citrus. In 1905, the exchange changed its name to California Fruit Growers’ Exchange (later known as SunKist). The exchange was originally formed as a marketing and shipping agency, and created a business model effectively used by other agricultural groups, such as the California Associated Raisin Company (Cleland 1922). The California Fruit Growers’ Exchange was instrumental in making citrus the chief crop raised in Orange County, as it remained until frost and disease shifted citrus raising to the State of Florida.

C.J. Segerstrom emigrated from Sweden to Orange County and established a lima bean farm at the turn of the twentieth century. At one time, the Segerstrom family owned as much as 40,000 acres of lima bean fields (Oncken, 2009). The family home and Western-style barn, located at 3315 Fairview Road (see Sheet 8 of the Figure 3 in Attachment A of the HPSR prepared for this project), with associated lima bean fields remains an active farm, though several acres have been redeveloped with commercial buildings such as the South Coast Plaza shopping mall.

2.4.5 Architectural Trends

The most common detached single-family residential architectural style found throughout Orange County from this time period is the Craftsman bungalow. A typical example of a Craftsman bungalow is a one-story building, with a low-pitched gabled roof with exposed rafter tails, large sheltered porches with battered or square columns supporting the porch roof. The Craftsman bungalow was popular from 1905 to 1930. Other examples of architectural styles of this period are as follows: Stick, Queen Anne, Folk Victorian, Colonial Revival, Neo-Classical, Tudor, Chateausque, Beaux Arts, and Italian Renaissance (McAlester 1992). The latter architecture styles are uncommon in Orange County; however, the Craftsman bungalow can be found in the historic cores of most cities within Orange County.

2.5 1918-1941 Inter War Period

2.5.1 Transportation Developments

With Henry Ford's invention of assembly line production and the end of World War I, automobiles became less expensive and within the reach of the average American family. The era of the railroad began to decline around 1917 with the United States entry into World War I, and the reign of the railroads never returned due to the widespread availability of the automobile. Roads were constructed to support the increasingly popular automobile and the beginnings of the "car culture" were sown. The early car culture included road trips for leisure and also necessity as described in John Steinbeck's *Grapes of Wrath*, where the Joad family lost their family farm in the Mid-West and were forced to travel to California in search of work during the Great Depression of the 1930s.

In order to meet drivers' needs to travel, an early highway was established to facilitate travel across the county. The segment of what is now known as the Pacific Coast Highway (or State Route 1) between San Juan Capistrano and Oxnard, was added to the state highway system in 1919, and was originally signed as Legislative Route Number (LRN) 60 (cahighways.org 2010b). The roadway follows the coastline in Orange County, thus the name, which reflects the settlement patterns of the time.

The aviation industry began in Orange County in the early 1900s. Glenn Martin built the first airplane in California in 1909 in a church in Santa Ana (Emmons 1988). In the 1920s, the Irvines built a small air strip, located at what is now John Wayne Airport (El Toro Info Site 2010). Haster Field, in Garden Grove, was another early air strip (Garden Grove Historical Society 2005). This budding aviation industry would eventually become one of the major industries in Orange County following World War II.

The Orange County Airport became a publicly owned airport in 1938 through a land swap deal between Orange County and the Irvine Company. The airport was used by the US military temporarily during World War II, and was returned to the County with a deed restriction indicating the site was to remain open to aviation or other non-manufacturing or non-industrial uses. A terminal was constructed in 1967, and additions were constructed during the late 1980s. The Orange County Airport was renamed the John Wayne Airport in 1979 (El Toro Info Site 2010).

Other transportation improvements that occurred during this period of time included the Newport Harbor was further improved with a 1900-foot long west jetty, the Bitter Point Dam was constructed, the Santa Ana River was diverted from the bay, and the harbor was further dredged to allow for larger ships.

2.5.2 Agriculture and Industry

Research indicates there was very little change in the agricultural-based economy throughout Orange County during this time period. Citrus, sugar beats, and lima beans remained the premier crops.

The Orange County Flood Control District began one of the largest flood control projects in southern California in the late 1930s in response to catastrophic flooding. Flood control efforts included construction of Prado Dam, located in Riverside County about three miles north of the Orange County line, to tame the Santa Ana River (Hatheway et al 1996). Other flood control efforts included channelization of rivers and streams, and the San Gabriel River was altered to reduce impacts on the Newport Harbor.

Oil was discovered in Huntington Beach in 1920, and the Standard Oil Company established an oil well the same year. The discovery of oil resulted in a land boom which lasted throughout the 1920s. In 1926, residents voted to allow oil drilling within the city limits, and soon the city was overrun with oil derricks (Milkovich 2004). Oil drilling remained the primary economic base for Huntington Beach until the 1950s.

2.5.3 Development of Towns and Cities

The unincorporated area of Orange County known as Midway City was established by John Harper who purchased about 200 acres for the purposes of platting a townsite in 1923-1924. Housing was built to support the booming oil industry in the region. Supporting services, such as stores and a post office were established by 1929. Midway City was an early residential development surrounded by lima bean fields until the suburbanization movement associated with post World War II (Cramer, 2004).

Hawaiian Gardens was established 1927, and is named for a fruit stand who's owner sold illegal alcohol during the days of Prohibition. The fruit stand spawned a small town, which disappeared after the repeal of Prohibition. The area reverted to agricultural fields and unsettled areas, with a sparse population (Jacobs nd). Inexpensive land prices eventually drew settlers beginning in the 1930s, but the area really developed as a result of the postwar suburbanization movement associated with World War II. Hawaiian Gardens was incorporated in 1964.

2.5.4 Architectural Trends

The Long Beach earthquake occurred at 5:55 PM on March 10, 1933, and several unreinforced brick buildings collapsed; notably schools in both Los Angeles and Orange Counties. A direct result of this earthquake was the passing of the Field Act, which mandated earthquake-resistant designs for all educational buildings. The Uniform Building Code of 1927 was also updated in 1935 in response to this earthquake (Fatemi and James 1997).

Art Deco and Streamline Moderne reflected the sleek modernity of the age of aviation. Art Deco is often characterized by geometric detailing, set-backs, and towers or vertical projections, while Streamline Moderne is noted for curvilinear surfaces. Eclectic revival styles, such as Spanish, French, Chateausque, Monterey, or Tudor, were also popular during this time. Examples of these popular architectural styles from this time period include single-family and multi-family residential buildings, and commercial buildings (McAlester 1992).

The Craftsman bungalow was still a popular residential architectural style during this time period, and examples can be found throughout Orange County. Inspired by the Craftsman tradition, the Ranch style harkened back to the adobes dating from the Mexican period of Alta California, but with a new modern sleekness of design and materials. Cliff May is often attributed with being the founder of the Ranch style house. A Ranch style house is defined by the following characteristics: one-story with a low-pitched, gabled or hipped roof with wide eaves, an asymmetrical fenestration pattern, an open-interior plan which served to bring the outdoors into the living spaces, and a floor plan that was often rambling. Design elements often included Rustic, Spanish, French, Colonial, Oriental, and other traditional styles (Hess 2004). Ranch design elements were also incorporated into commercial buildings.

Harwell Hamilton Harris, a noted Modern architect, is credited with designing the first Oriental-influenced Ranch style building for the residence he designed for Pauline Lowe and Clive Delbridge in Altadena, California in 1933. Common examples of Asian influences on the Ranch style idiom are gable ridges with upswept peaks and ornamental motifs for shutters, screens, and railings (Hess 2004).

The Medallion Award was a national program established in the late 1950s to promote “extra features” which made homes more energy efficient. Extras included modern electric ranges, wall outlets located in convenient and easy to use locations, and proper lighting (*Los Angeles Times* 1958a). This program highlights both the modernity of style and comforts touted as being the hallmark of the new Ranch style home, and also the sleek marketing campaigns used by the building industry to reinforce the notion newer is better in an effort to boost their sales.

2.6 World War II and the Post-War Boom (1940-1965)

2.6.1 Military Preparedness

Many important military installations were established during early to mid-1940s in Orange County, such as the Naval Ammunition Depot (NAD), the Tustin Marine Corps Air Station, and the Santa Ana Army Air Base.

The NAD, now known as the NWSSB, was established in Seal Beach in 1944. The NAD was established as a place to store and supply ammunition for Naval efforts in the Pacific Theatre of Operations. Since 1944, the NAD/NWSSB has been expanded to include performance analysis of missiles, torpedoes, and conventional ammunition, as reflected in the name change of the facility. During the 1960s and 1970s, North American Aviation, a National Aeronautics and Space Administration (NASA) contractor, established a facility for research and development at this facility (JRP Historical Consulting Services 1999). NWSSB is a historic district, containing 242 resources, formally determined eligible for listing in the NRHP and is located within the APE of this project. However, none of the buildings associated with this NRHP-eligible historic district are located within the APE.

The Santa Ana Naval Air Station, now known as the Marine Corps Air Station, was established in 1942 as a blimp base, with two large blimp hangars. The other west coast blimp base was established in Tillamook, Oregon. Blimps were used to patrol the coastline, and to escort ships out to sea. The hangars are the world's largest clear span wood buildings, and each was designed to hold six blimps. Following the end of World War II, the blimp base was decommissioned in 1949, and was transferred to the Marine Corps in 1951. The base was ultimately closed by the Marine Corps in 1999, and one of the blimp hangars has been designated a National Historic Landmark (Freeman 2010).

The Santa Ana Army Air Base (SAAAB) was activated on February 15, 1942, and was under the jurisdiction of the West Coast Army Air Corps Training Command Center. In addition to testing cadets for aptitude and classification as pilots, navigators or bombardiers, the SAAAB was the only base to provide pre-flight training for all three classifications. The base was deactivated on March 31, 1946 (Costa Mesa Historical Society 2010a).

Other war-related activities occurred at the Ports of Los Angeles and Long Beach. After the Japanese bombed Pearl Harbor in 1941, the United States Navy immediately assumed control of the Port of Los Angeles, for use of defense activities associated with the Pacific Theatre of Operations. Ship and air production facilities operated 24 hours a day at the Port of Los Angeles until the end of World War II, and produced more than 15 tons of war equipment (ICF Jones & Stokes 2008). Similar activities occurred at the Port of Long Beach.

2.6.2 Transportation

One notable impact World War II had on the United States was the recognized need for a comprehensive internal circulation system to allow for movement of war-time goods and equipment. On June 29, 1956, General and President Dwight D. Eisenhower signed the Federal-Aid Highway Act of 1956, which officially established the interstate highway system (Weingroff 2010). This act resulted in resigning highways as interstates as well as construction of new highways. Interstates 5, 405, and 605 are located within Orange County. Nat Neff, chief engineer of the County Highway Department, is largely credited

with being the mastermind behind the development of the master highway plan in Orange County, which was formerly adopted in 1956 (*Orange County Register* 2005).

The following section provides information regarding each freeway within the project APE. The segment of I-605 located within the project APE was defined in 1963 as “Route 405 to Route 10 near the San Gabriel River” and this segment was added onto in 1968 (cahighways.org 2010c). SR-22 was included in the Freeway and Expressway system in 1959, was defined in 1963 (cahighways.org 2010d). The segment of I-405 located within the project APE was opened in 1957, signed as Route 7, and the section near the southern junction with Interstate 5 opened in 1969. This segment remains as defined in 1963 (cahighways.org 2010e). SR- 55 was adopted as a Freeway in 1954, and the route remains as defined in 1963 (cahighways.org 2010f). Lastly, SR-73 was redefined in 1965 which caused the route to terminate at I-405 (cahighways.org 2010g).

The late 1940s and 1950s saw the end of the Pacific Electrical Railway in Orange County because the automobile was the preferred method of travel. The Pacific Electric Railway Line which ran from Los Angeles through Seal Beach and Huntington Beach, to Balboa, ended service on June 20, 1950 (ERHA 2010d). The short-lived Sky Harbor Airport was opened in 1946, and was demolished in 1953 to make way for residential development, which reflects the extraordinary real estate boom that occurred in southern California at this time (Costa Mesa Historical Society 2010b).

2.6.3 Population Growth and Expansion of Towns and Cities

Two events are largely considered responsible for the explosion of suburban housing following World War II. The first event was Levittown in the State of New York, in which Alfred Levitt, and his sons, developed a method to quickly and cheaply mass-produce housing. One aspect of the speed with which the homes could be constructed is the tract consisted of one design for a house so workmen could be trained for a specific task related to the over-all construction process much like Henry Ford’s assembly line. The second event was the signing of the Servicemen’s Readjustment Act of 1944, commonly known as the GI Bill, which gave returning servicemen the ability to purchase homes with a minimal down payment, and to acquire Federal Housing Authority (FHA)-secured loans for the balance (Wright 2007). These two events resulted in thousands of acres of citrus groves, dairy fields, and other agricultural-use fields being converted to residential tract developments.

Not only were the residential tracts homogenous in their lay-outs of curvilinear street patterns harkening to Frederick Law Olmsted’s disdain for grid-pattern lay-outs and their minimal number of floor plans and façade treatments; they were also racially and socially homogenous. Conditions, covenants, and restrictions (CCRs) limited ownership to White Anglo-Saxon Protestant ownership, and beginning in 1939 were enforced through the FHA Underwriter’s Manual. Though Thurgood Marshall won a Supreme Court case, *Shelley versus Kraemer*, in 1948 which officially ended racial discrimination in the housing market, the practice persisted (Wright 2007). In California, the Rumford Act of 1963, also known as the ‘Fair Employment and Housing Act’ ended the practice of real

estate covenants which prohibited the sales of homes to African-Americans, Latinos, Asians, and Jews (California Assembly Bill No. 1240).

Following the end of World War II, many servicemen returned to southern California after being stationed here during the war to enjoy the climate and for employment opportunities. The result of this population growth was a massive real estate boom which effectively suburbanized Orange County. The population of towns exploded as exemplified by Garden Grove which had a population of 3,762 in 1952, and a population of 84,417 in 1962 (Garden Grove Historical Society 2005). The population boom resulted in a prolific construction industry which was matched by a dramatic decline in the agricultural industry within the communities located within the project APE as citrus groves and fields were converted to residential tract housing. For example, Ross Cortese started developing Rossmoor in 1956, which with 3,500 residences was the largest planned community built in Orange County at that time (Kendrick 2004). The average house in Orange County was constructed during this time period, and outside of the historic cores of cities, very few buildings pre-date 1950.

2.6.4 Agriculture and Industry

As mentioned in the preceding section, agricultural endeavors were being replaced by residential tract development at a rapid pace, and the need for new industries to support local economies arose. Northrup was the first large aviation and aerospace firm to open in Orange County in 1951 (Emmons 1988). The Douglas Space Center opened in 1963 in Huntington Beach, and by 1965, McDonnell Douglas was the largest employer in Huntington Beach (Santiago nd). Orange County is now known for the aviation and aeronautical industries as exemplified by the large presence of Northrup and McDonnell Douglas. Another important industry found in Orange County is manufacturing, which accounted for 41 percent of the work force in 1964 (Emmons 1988).

2.6.5 Architectural Trends

One architectural trend originated in Orange County: private, age-restricted senior living communities. Leisure World, located at 1901 Golden Rain Road off Seal Beach Boulevard and adjacent to I-405 in Seal Beach, was the first community planned exclusively for senior citizens, and has operated under the same CCRs to date (Alioto 2005). Developed by Ross Cortese in 1961, the community caters to the needs of senior citizens. Amenities included on-site medical facilities, a library, churches of various denominations, and shopping. Cortese used the model for Leisure World established in Seal Beach as a basis for other senior communities found throughout the western United States, which has been emulated by other developers.

Chapter 3 Archaeological Research Context

No previously recorded historical archaeological resources are located within the APE. Please see the ASR in Attachment B of the HPSR prepared for this project for a description of the archaeological resource context developed for this project.

Chapter 4 Description of Cultural Resources

The APE covers an area approximately 16 miles in length along I-405 between SR-73 in the south I-605 in the north. The area is generally urban in character consisting of residential, commercial, and industrial uses. There are remnants of early agricultural development, such as irrigation ditches and canals found throughout the project APE. The only remaining homestead parcel located within the Indirect APE, Segerstrom House and Barn, is surrounded with residential and commercial building developments, arterial streets, and I-405. There are 3,154 parcels containing buildings, groups of buildings, and structures within the APE. Of these, there are 340 buildings, groups of buildings, or structures that were constructed before 1965 and retain integrity. The buildings, groups of buildings, and/or structures represented in this survey include 20th century residential buildings, commercial buildings, and industrial buildings. In addition, a total of 41 bridges are located within the APE (see Attachment C of the HPSR prepared for this project). No historical archaeological sites were documented as a result of this survey (see Chapter 5). The remaining properties within the APE are either modern in character or have impaired integrity, and were exempted from further study pursuant to Attachment 4 of the Section 106 PA.

As a result of this study, it was determined that there are 340 properties located within the APE which required evaluation. The buildings/structures associated with the NWSSB NRHP-eligible historic district are located outside of the project Indirect APE and were not included in this survey. Of the 340 buildings and/or structures evaluated for this study that were constructed in or before 1965, one site, Segerstrom House and Barn, located at 3315 Fairview Avenue, Costa Mesa, was previously determined to appear eligible for listing in the NRHP. Two resources were determined eligible for listing in the NRHP and the CRHR as a result of this study. Leisure World, 1901 Golden Rain Road, Seal Beach, was determined to appear eligible for listing in the NRHP and the CRHR as a historic district. Westminster Lanes, located at 6471 Westminster Boulevard, Westminster, was determined to appear eligible for listing in the NRHP and the CRHR as an individual resource. No additional historic architectural resources were found eligible for listing in the NRHP and the CRHR as a result of this study. Please refer to Appendix A of this HRER for a detailed description of the resources and a discussion of their historical significance.

Chapter 5 Findings and Conclusions

5.1 Findings

As a result of this study, it was determined that there are 340 properties located within the APE which required evaluation. The buildings/structures associated with the NWSSB NRHP-eligible historic district are located outside of the project APE and were not included in this survey. Of the 340 buildings and/or structures evaluated for this study that were constructed in or before 1965, one site, Segerstrom House and Barn, located at 3315 Fairview Avenue, Costa Mesa, was previously determined to appear eligible for listing in the NRHP (CRHR status code 3S). Two resources were determined to appear eligible for listing in the NRHP and the CRHR as a result of this study. Leisure World, 1901 Golden Rain Road, Seal Beach was determined to appear eligible for listing in the NRHP and the CRHR as an historic district. Westminster Lanes, located at 6471 Westminster Boulevard, Westminster, was determined to appear eligible for listing in the NRHP and the CRHR as an individual resource. No additional historic architectural resources were found eligible for listing in the NRHP and the CRHR as a result of this study. No historical archaeological resources were identified within the Direct APE. The following tables summarize the findings of this HRER:

Table 5.1: Properties Previously Evaluated for Inclusion in the NRHP and the CRHR.

Name/Address	Community	OHP Status Code	Map Reference No.
Segerstrom House and Barn 3315 Fairview Avenue	Costa Mesa	3S	Map Reference No. 45
Naval Weapons Station Seal Beach (NWSSB)	Seal Beach	2D2	(buildings/structures are located outside of the APE)

Table 5.2: Properties Determined Eligible for Inclusion in the NRHP and the CRHR as a Result of This Study.

Name/Address	Community	OHP Status Code	NRHP Eligibility Criterion	Map Reference No.
Segerstrom House and Barn 3315 Fairview Avenue	Costa Mesa	3S	A & C	Map Reference No. 45
6471 Westminster Boulevard/ Westminster Lanes	Westminster	3CS	A	Map Reference No.119
1860 Saint John Road/ Leisure World	Seal Beach	3CD	A & B	Map Reference No.196

Name/Address	Community	OHP Status Code	NRHP Eligibility Criterion	Map Reference No.
13040 Del Monte Drive/ Building 45/Leisure World	Seal Beach	3CD	A & B	Map Reference No.198
1515 Northwood Road/ Leisure World	Seal Beach	3CD	A & B	Map Reference No.206
13100 Oak Hills Drive/ Leisure World	Seal Beach	3CD	A & B	Map Reference No.308
13040 Oak Hills Drive; Leisure World	Seal Beach	3CD	A & B	Map Reference No.309
1040 Foxburg Road/ Building 217/Leisure World	Seal Beach	3CD	A & B	Map Reference No.310

Table 5.3: Properties Determined Ineligible for Inclusion in the NRHP and the CRHR as a Result of This Study

Name/Address	Community	OHP Status Code	Map Reference No.
502 Traverse Drive	Costa Mesa	6Z	Map Reference No.1
514 Traverse Drive	Costa Mesa	6Z	Map Reference No.2
538 Traverse Drive	Costa Mesa	6Z	Map Reference No.3
542 Traverse Drive	Costa Mesa	6Z	Map Reference No.4
546 Traverse Drive	Costa Mesa	6Z	Map Reference No.5
562 Traverse Drive	Costa Mesa	6Z	Map Reference No.6
574 Traverse Drive	Costa Mesa	6Z	Map Reference No.7
582 Traverse Drive	Costa Mesa	6Z	Map Reference No.8
590 Traverse Drive	Costa Mesa	6Z	Map Reference No.9
594 Traverse Drive	Costa Mesa	6Z	Map Reference No.10
3158 Yellowstone Drive	Costa Mesa	6Z	Map Reference No.11
13791 Olympic Avenue	Costa Mesa	6Z	Map Reference No.12
13741 Olympic Avenue	Costa Mesa	6Z	Map Reference No.13
13721 Olympic Avenue	Costa Mesa	6Z	Map Reference No.14
13691 Olympic Avenue	Costa Mesa	6Z	Map Reference No.15
13671 Olympic Avenue	Costa Mesa	6Z	Map Reference No.16
13651 Olympic Avenue	Costa Mesa	6Z	Map Reference No.17
930 Cheyenne Street	Costa Mesa	6Z	Map Reference No.18
934 Cheyenne Street	Costa Mesa	6Z	Map Reference No.19
938 Cheyenne Street	Costa Mesa	6Z	Map Reference No.20
948 Cheyenne Street	Costa Mesa	6Z	Map Reference No.21
952 Cheyenne Street	Costa Mesa	6Z	Map Reference No.22
956 Cheyenne Street	Costa Mesa	6Z	Map Reference No.23
1056 Concord Street	Costa Mesa	6Z	Map Reference No.24
1064 Concord Street	Costa Mesa	6Z	Map Reference No.25

Name/Address	Community	OHP Status Code	Map Reference No.
1072 Concord Street	Costa Mesa	6Z	Map Reference No.26
3143 Pierce Avenue	Costa Mesa	6Z	Map Reference No.27
1114 Charleston Street	Costa Mesa	6Z	Map Reference No.28
1122 Charleston Street	Costa Mesa	6Z	Map Reference No.29
1150 Charleston Street	Costa Mesa	6Z	Map Reference No.30
1166 Charleston Street	Costa Mesa	6Z	Map Reference No.31
1170 Charleston Street	Costa Mesa	6Z	Map Reference No.32
1174 Charleston Street	Costa Mesa	6Z	Map Reference No.33
3129 Boston Way	Costa Mesa	6Z	Map Reference No.34
1198 Boise Way	Costa Mesa	6Z	Map Reference No.35
1199 Boise Way	Costa Mesa	6Z	Map Reference No.36
1198 Bismark Way	Costa Mesa	6Z	Map Reference No.37
1199 Bismark Way	Costa Mesa	6Z	Map Reference No.38
1198 Augusta Street	Costa Mesa	6Z	Map Reference No.39
1202 Parnell Place	Costa Mesa	6Z	Map Reference No.40
1201 McCormack Lane	Costa Mesa	6Z	Map Reference No.41
3138 Bray Lane	Costa Mesa	6Z	Map Reference No.42
3154 Bray Lane	Costa Mesa	6Z	Map Reference No.43
3160 Bray Lane	Costa Mesa	6Z	Map Reference No.44
3195 Harbor Boulevard	Costa Mesa	6Z	Map Reference No.46
17540 Chestnut Street	Fountain Valley	6Z	Map Reference No.47
17530 Chestnut Street	Fountain Valley	6Z	Map Reference No.48
9471 La Colonia Avenue	Fountain Valley	6Z	Map Reference No.49
9486 La Luna Avenue	Fountain Valley	6Z	Map Reference No.50
9456 La Luna Avenue	Fountain Valley	6Z	Map Reference No.51
17398 Poplar Street	Fountain Valley	6Z	Map Reference No.52
9437 La Luna Avenue	Fountain Valley	6Z	Map Reference No.53
9450 El Sol Circle	Fountain Valley	6Z	Map Reference No.54
17330 Poplar Street	Fountain Valley	6Z	Map Reference No.55
17318 Poplar Street	Fountain Valley	6Z	Map Reference No.56
17292 Poplar Street	Fountain Valley	6Z	Map Reference No.57
9181 El Cortez Avenue	Fountain Valley	6Z	Map Reference No.58
9171 El Cortez Avenue	Fountain Valley	6Z	Map Reference No.59
9157 El Cortez Avenue	Fountain Valley	6Z	Map Reference No.60
9117 El Cortez Avenue	Fountain Valley	6Z	Map Reference No.61
9300 Daisy Avenue	Fountain Valley	6Z	Map Reference No.62
16853 Daisy Avenue	Fountain Valley	6Z	Map Reference No.63
16789 Daisy Avenue	Fountain Valley	6Z	Map Reference No.64
16763 Daisy Avenue	Fountain Valley	6Z	Map Reference No.65
16741 Daisy Avenue	Fountain Valley	6Z	Map Reference No.66
16645 Daisy Avenue	Fountain Valley	6Z	Map Reference No.67
16635 Daisy Avenue	Fountain Valley	6Z	Map Reference No.68
8971 Neptune Circle	Westminster	6Z	Map Reference No.69
16490 Van De Velde Way	Westminster	6Z	Map Reference No.70

Name/Address	Community	OHP Status Code	Map Reference No.
16481 Van De Velde Way	Westminster	6Z	Map Reference No.71
16451 Venus Drive	Westminster	6Z	Map Reference No.72
16391 Venus Drive	Westminster	6Z	Map Reference No.73
16351 Venus Drive	Westminster	6Z	Map Reference No.74
8841 De Ville Circle	Huntington Beach	6Z	Map Reference No.75
8822 Savoy Circle	Huntington Beach	6Z	Map Reference No.76
8791 Savoy Circle	Huntington Beach	6Z	Map Reference No.77
16522 Landau Lane	Huntington Beach	6Z	Map Reference No.78
16541 Landau Lane	Huntington Beach	6Z	Map Reference No.79
16511 Landau Lane	Huntington Beach	6Z	Map Reference No.80
16410 Tryon Street	Westminster	6Z	Map Reference No.81
16340 Timothy Lane	Westminster	6Z	Map Reference No.82
16411 Laura Way	Westminster	6Z	Map Reference No.83
16441 Laura Way	Westminster	6Z	Map Reference No.84
8511 Heil Avenue/ Sterling Liquor Market	Westminster	6Z	Map Reference No.85
8490 Drey Road	Westminster	6Z	Map Reference No.86
16430 Jody Circle	Westminster	6Z	Map Reference No.87
16400 Jody Circle	Westminster	6Z	Map Reference No.88
16320 Jody Circle	Westminster	6Z	Map Reference No.89
7902 Edinger Avenue	Huntington Beach	6Z	Map Reference No.90
15557 Beach Boulevard	Westminster	6Z	Map Reference No.91
15621 Beach Boulevard/ Driftwood Mobile Home Park	Westminster	6Z	Map Reference No.92
7801 McFadden Avenue	Midway City	6Z	Map Reference No.93
7681 Sugar Drive	Huntington Beach	6Z	Map Reference No.94
15452 Shasta Lane	Huntington Beach	6Z	Map Reference No.95
15431 Cascade Lane	Huntington Beach	6Z	Map Reference No.96
15421 Cascade Lane	Huntington Beach	6Z	Map Reference No.97
15411 Cascade Lane	Huntington Beach	6Z	Map Reference No.98
15401 Cascade Lane	Huntington Beach	6Z	Map Reference No.99
15381 Cascade Lane	Huntington Beach	6Z	Map Reference No.100

Name/Address	Community	OHP Status Code	Map Reference No.
15371 Cascade Lane	Huntington Beach	6Z	Map Reference No.101
15351 Cascade Lane	Huntington Beach	6Z	Map Reference No.102
15341 Cascade Lane	Huntington Beach	6Z	Map Reference No.103
15321 Cascade Lane	Huntington Beach	6Z	Map Reference No.104
7041 Sowell Avenue	Westminster	6Z	Map Reference No.105
6902 Sowell Avenue	Westminster	6Z	Map Reference No.106
6862 Sowell Avenue	Westminster	6Z	Map Reference No.107
6856 Sowell Avenue	Westminster	6Z	Map Reference No.108
6462 Royal Oak Drive	Huntington Beach	6Z	Map Reference No.109
14612 Yucca Circle	Huntington Beach	6Z	Map Reference No.110
14582 Yucca Circle	Huntington Beach	6Z	Map Reference No.111
6531 Homer Street	Westminster	6Z	Map Reference No.112
6472 Sunside Avenue	Westminster	6Z	Map Reference No.113
6441 Walt Street	Westminster	6Z	Map Reference No.114
6462 Walt Street	Westminster	6Z	Map Reference No.115
6442 Walt Street	Westminster	6Z	Map Reference No.116
6372 Walt Street	Westminster	6Z	Map Reference No.117
6328 Westminster Boulevard/ International Billiards	Westminster	6Z	Map Reference No.118
6342 Rochelle Avenue	Westminster	6Z	Map Reference No.120
6201 Mahogany Avenue	Westminster	6Z	Map Reference No.121
The Atkinson/ 14076 Springdale Street	Westminster	6Z	Map Reference No.122
5831 Westminster Boulevard	Westminster	6Z	Map Reference No.123
5901 Westminster Boulevard/Sherwood Plaza	Westminster	6Z	Map Reference No.124
13882 Sherwood Street	Westminster	6Z	Map Reference No.125
13712 Sioux Road	Westminster	6Z	Map Reference No.126
13691 Sioux Road	Westminster	6Z	Map Reference No.127
13652 Springdale Street	Westminster	6Z	Map Reference No.128
13642 Springdale Street	Westminster	6Z	Map Reference No.129
13622 Springdale Street	Westminster	6Z	Map Reference No.130
13582 Springdale Street	Westminster	6Z	Map Reference No.131
5982 Meinhardt Road	Westminster	6Z	Map Reference No.132
13731 Springdale Street	Westminster	6Z	Map Reference No.133
5849 Vallecito Drive	Westminster	6Z	Map Reference No.134
5847 Vallecito Drive	Westminster	6Z	Map Reference No.135
5931 Meinhardt Road	Westminster	6Z	Map Reference No.136

Name/Address	Community	OHP Status Code	Map Reference No.
5921 Meinhardt Road	Westminster	6Z	Map Reference No.137
5801 Vallecito Drive	Westminster	6Z	Map Reference No.138
5871 Meinhardt Road	Westminster	6Z	Map Reference No.139
5851 Meinhardt Road	Westminster	6Z	Map Reference No.140
5811 Meinhardt Road	Westminster	6Z	Map Reference No.141
5751 Meinhardt Road	Westminster	6Z	Map Reference No.142
5711 Meinhardt Road	Westminster	6Z	Map Reference No.143
5671 Meinhardt Road	Westminster	6Z	Map Reference No.144
5661 Meinhardt Road	Westminster	6Z	Map Reference No.145
5641 Meinhardt Road	Westminster	6Z	Map Reference No.146
5601 Meinhardt Road	Westminster	6Z	Map Reference No.147
5541 Meinhardt Rd	Westminster	6Z	Map Reference No.148
13121 Buckingham Circle	Westminster	6Z	Map Reference No.149
8052 Larson Avenue	Garden Grove	6Z	Map Reference No.150
8032 Larson Avenue	Garden Grove	6Z	Map Reference No.151
7651 Benton Avenue	Westminster	6Z	Map Reference No.152
7641 Benton Avenue	Westminster	6Z	Map Reference No.153
7631 Benton Avenue	Westminster	6Z	Map Reference No.154
7601 Benton Avenue	Westminster	6Z	Map Reference No.155
7541 Benton Avenue	Westminster	6Z	Map Reference No.156
7521 Benton Avenue	Westminster	6Z	Map Reference No.157
7391 Natal Drive	Westminster	6Z	Map Reference No.158
7331 Natal Drive	Westminster	6Z	Map Reference No.159
7321 Natal Drive	Westminster	6Z	Map Reference No.160
7271 Natal Drive	Westminster	6Z	Map Reference No.161
6922 Anthony Avenue	Garden Grove	6Z	Map Reference No.162
6852 Anthony Avenue	Garden Grove	6Z	Map Reference No.163
6802 Garden Grove Boulevard	Westminster	6Z	Map Reference No.164
6782 Garden Grove Boulevard	Westminster	6Z	Map Reference No.165
13011 Edwards Street	Westminster	6Z	Map Reference No.166
13021 Edwards Street	Westminster	6Z	Map Reference No.167
6612 Anthony Avenue	Garden Grove	6Z	Map Reference No.168
6602 Anthony Avenue	Garden Grove	6Z	Map Reference No.169
13012 Taos Place	Westminster	6Z	Map Reference No.170
6552 Anthony Avenue	Garden Grove	6Z	Map Reference No.171
13011 Taos Place	Westminster	6Z	Map Reference No.172
6312 Garden Grove Boulevard	Westminster	6Z	Map Reference No.173
6412 Anthony Avenue	Garden Grove	6Z	Map Reference No.174
6392 Anthony Avenue	Garden Grove	6Z	Map Reference No.175
6382 Anthony Avenue	Garden Grove	6Z	Map Reference No.176
6362 Anthony Avenue	Garden Grove	6Z	Map Reference No.177